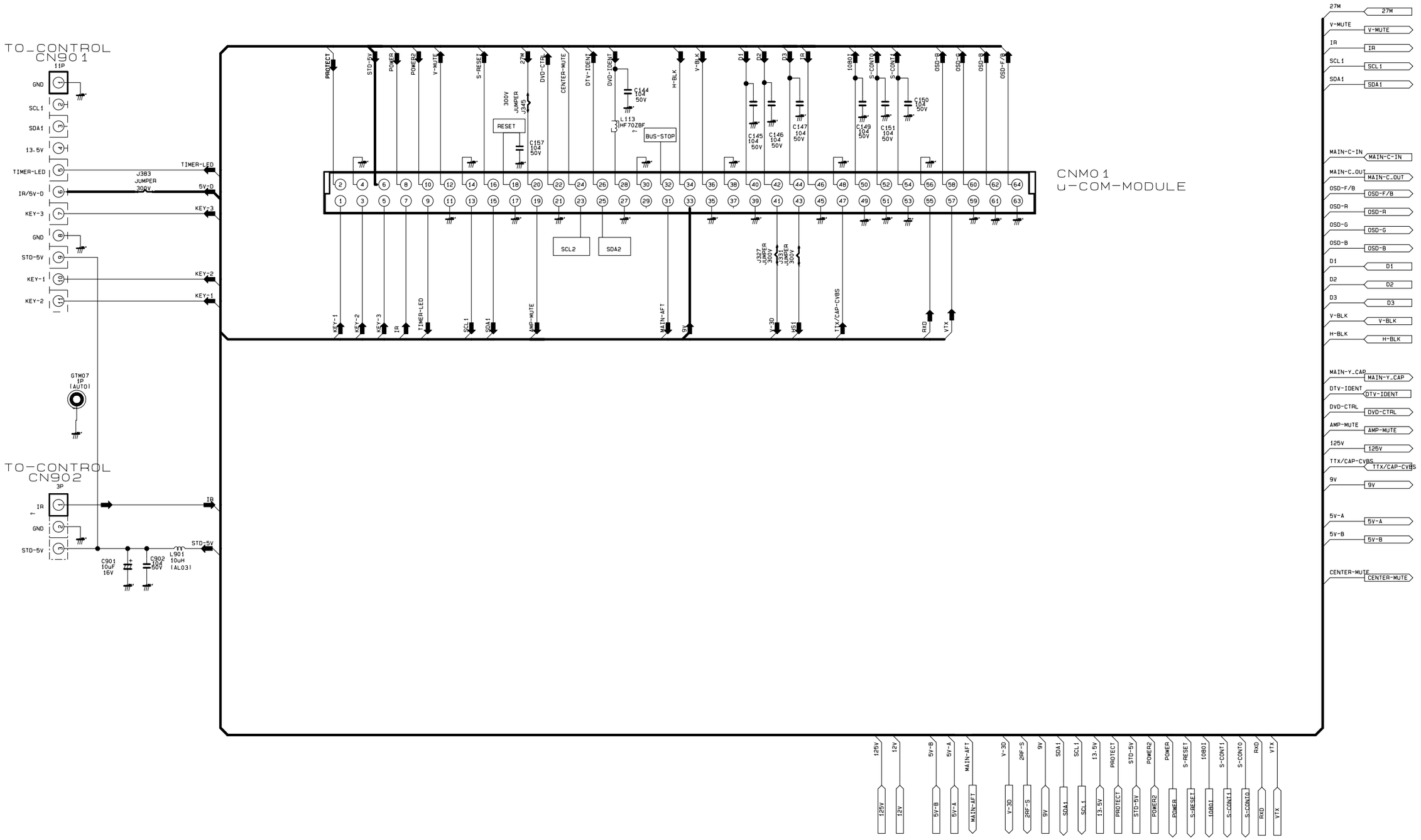
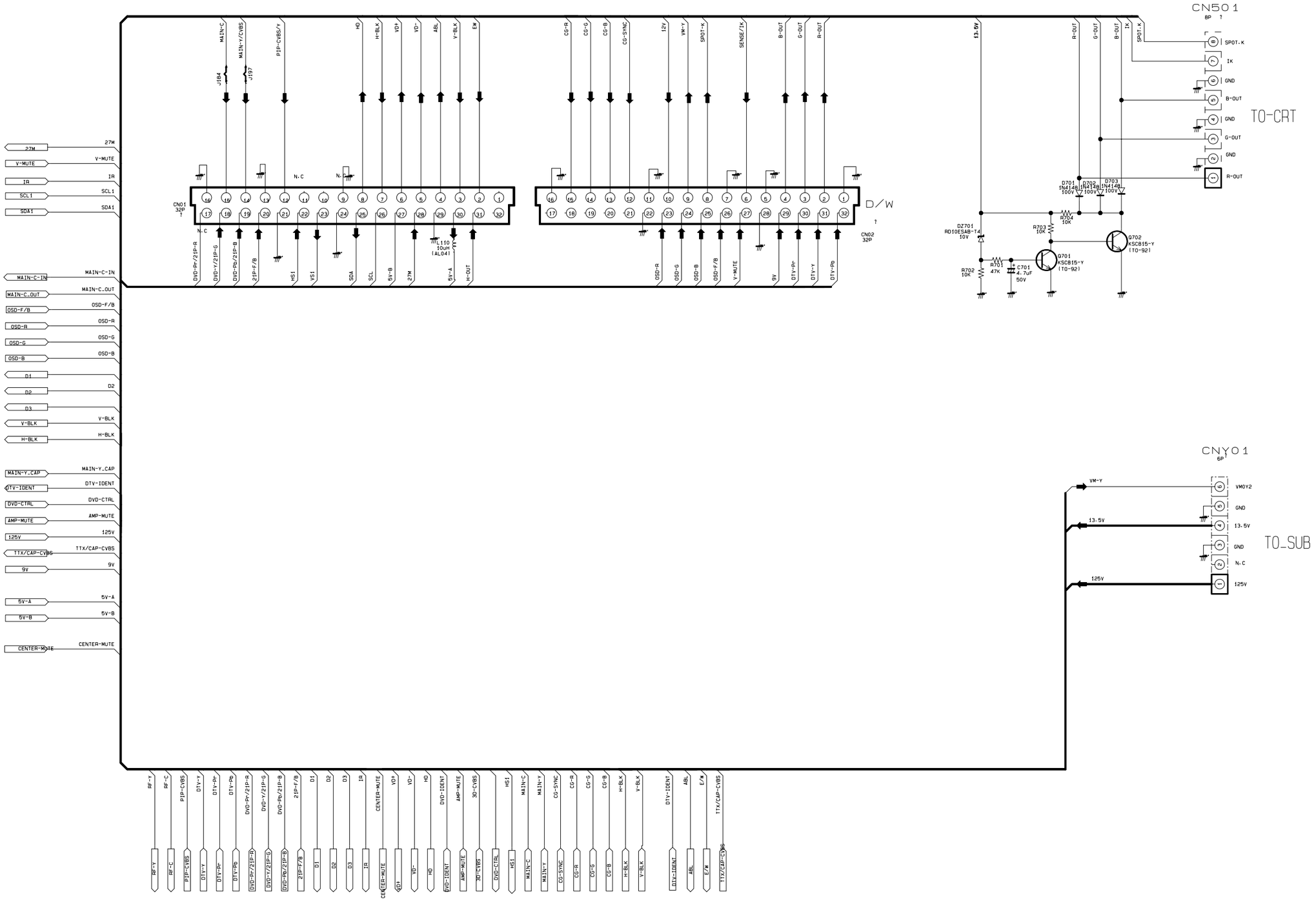
10. Schematic Diagrams

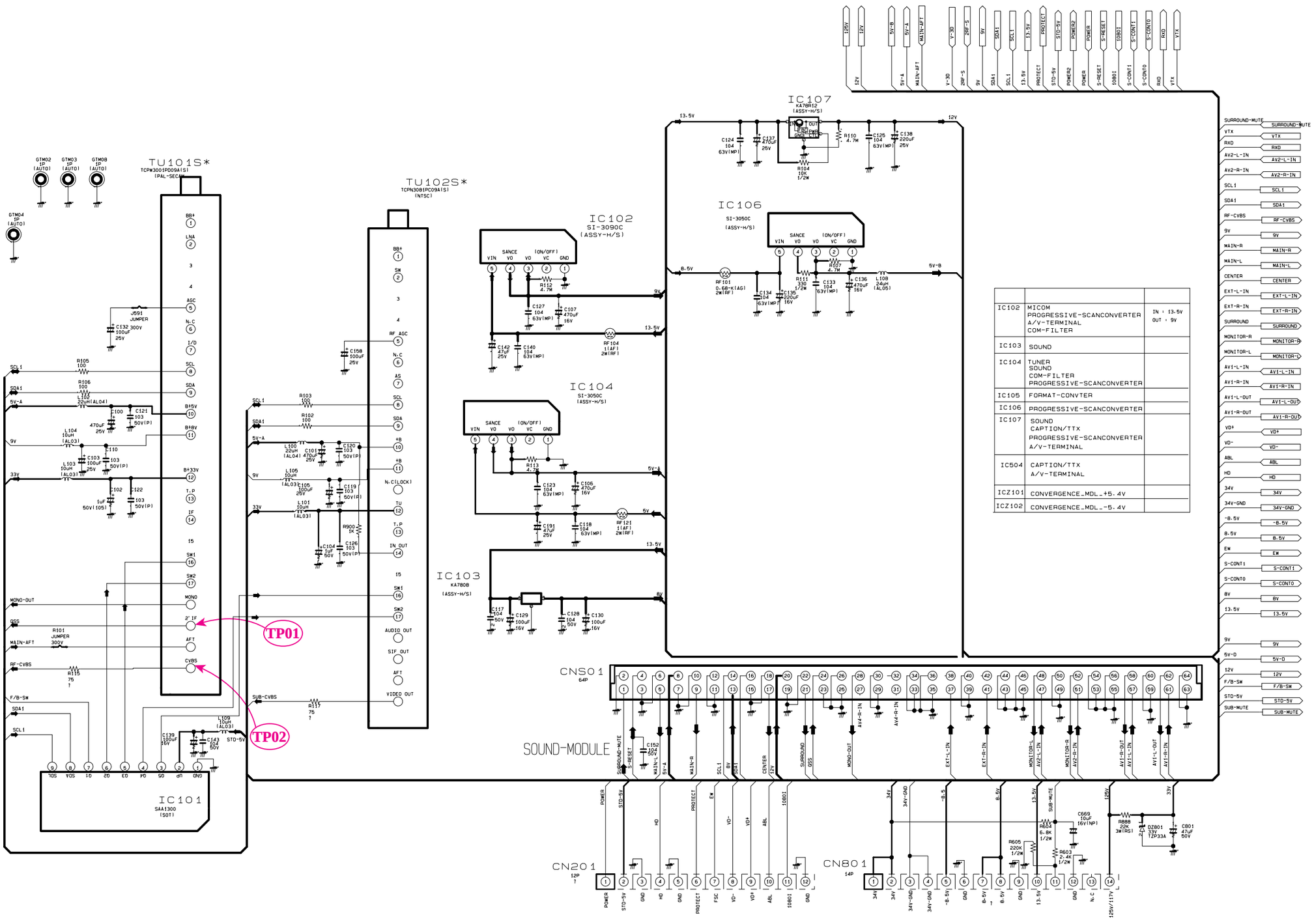
10-1 MAIN 1



10-2 MAIN 2

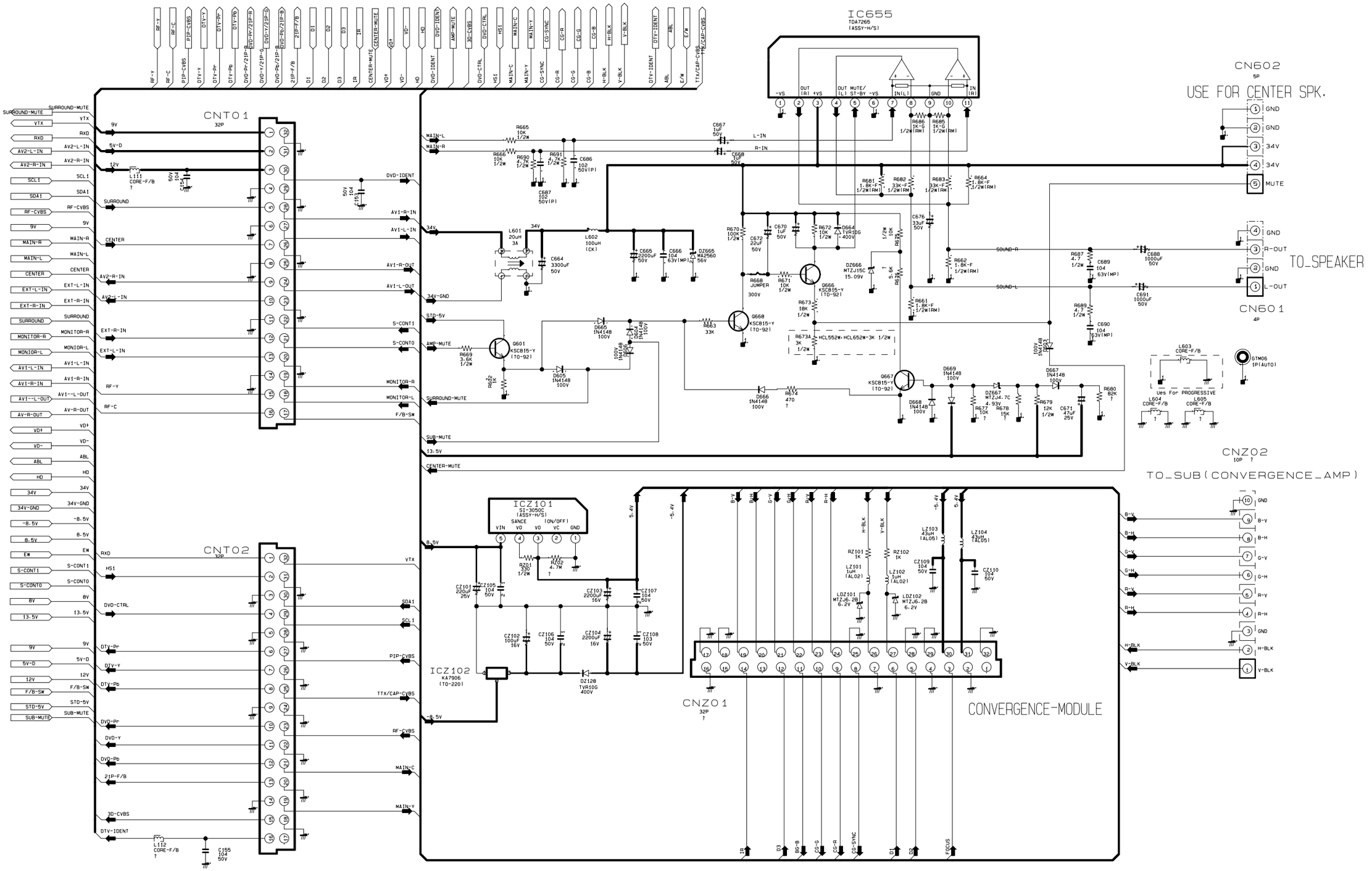

CN501
8P
SPOT-K
IK
GND
B-OUT
GND
G-OUT
GND
R-OUT
TO-CRT
CNYO1
6P
VM-Y
13.5V
125V
VMOY2
GND
13.5V
GND
N.C
125V
TO_SUB
CN01
32P
CN02
32P
D/W
27M
V-MUTE
IR
SCL1
SDA1
MAIN-C-IN
MAIN-C_OUT
OSD-F/B
OSD-R
OSD-G
OSD-B
D1
D2
D3
V-BLK
H-BLK
MAIN-Y_CAP
DTV-IDENT
DVD-CTRL
AMP-MUTE
125V
TTX/CAP-CVBS
9V
5V-A
5V-B
CENTER-MUTE
J184
J197
L110
10uH
(AL041)
DZ701
RD10ESAB-T4
10V
R701
47K
C701
4.7uF
50V
R702
10K
R703
10K
R704
10K
Q701
KSC815-Y
(TO-92)
Q702
KSC815-Y
(TO-92)
D701
1N4148
100V
D702
1N4148
100V
D703
1N4148
100V

10-3 MAIN 3

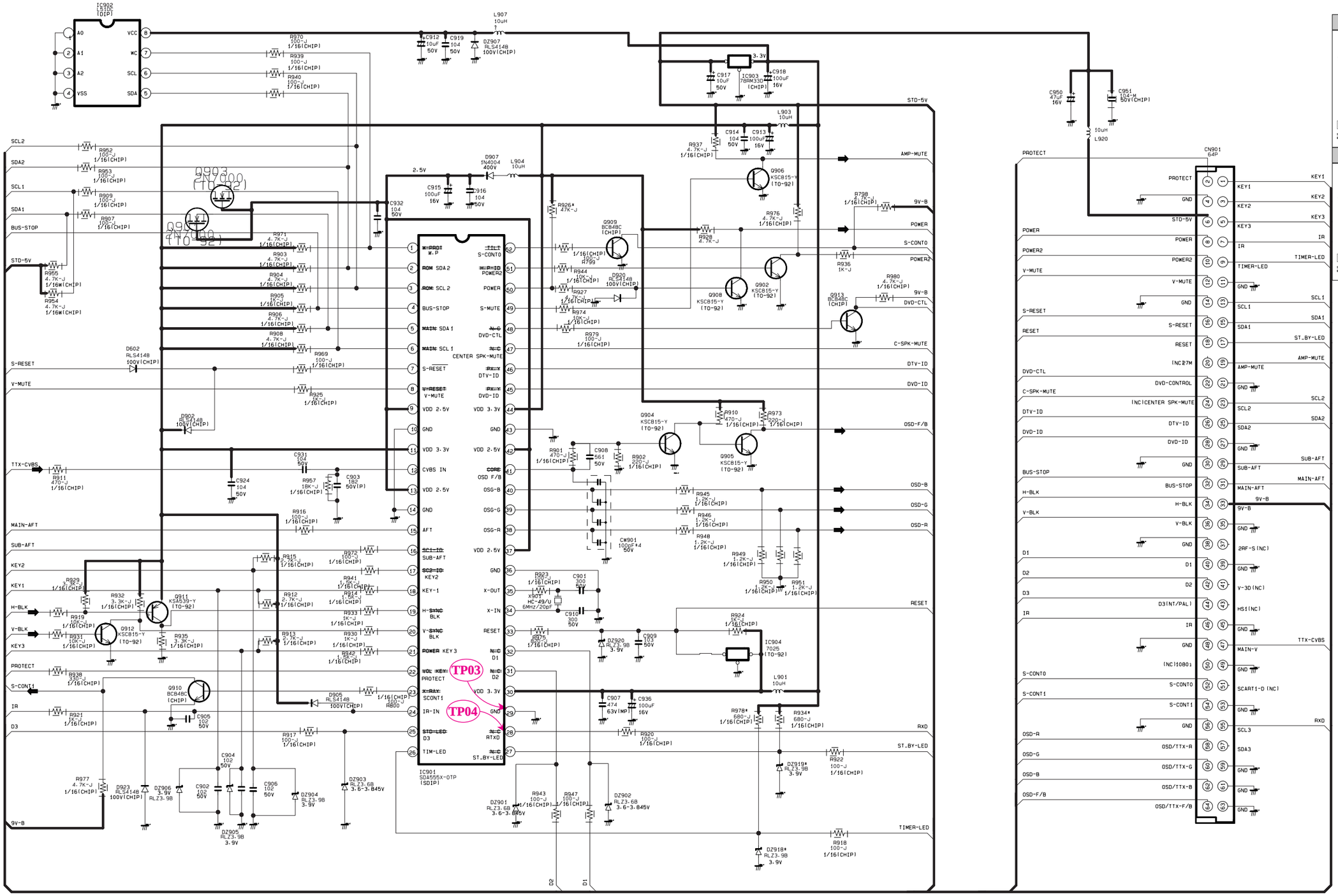


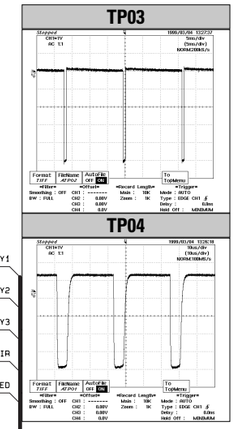
IC102	MICOM PROGRESSIVE-SCANCONVERTER A/V-TERMINAL COM-FILTER	IN : 13.5V OUT : 9V
IC103	SOUND	
IC104	TUNER SOUND COM-FILTER PROGRESSIVE-SCANCONVERTER	
IC105	FORMAT-CONVTER	
IC106	PROGRESSIVE-SCANCONVERTER	
IC107	SOUND CAPTION/TTX PROGRESSIVE-SCANCONVERTER A/V-TERMINAL	
IC504	CAPTION/TTX A/V-TERMINAL	
ICZ101	CONVERGENCE_MDL_+5.4V	
ICZ102	CONVERGENCE_MDL_-5.4V	

10-4 MAIN 4

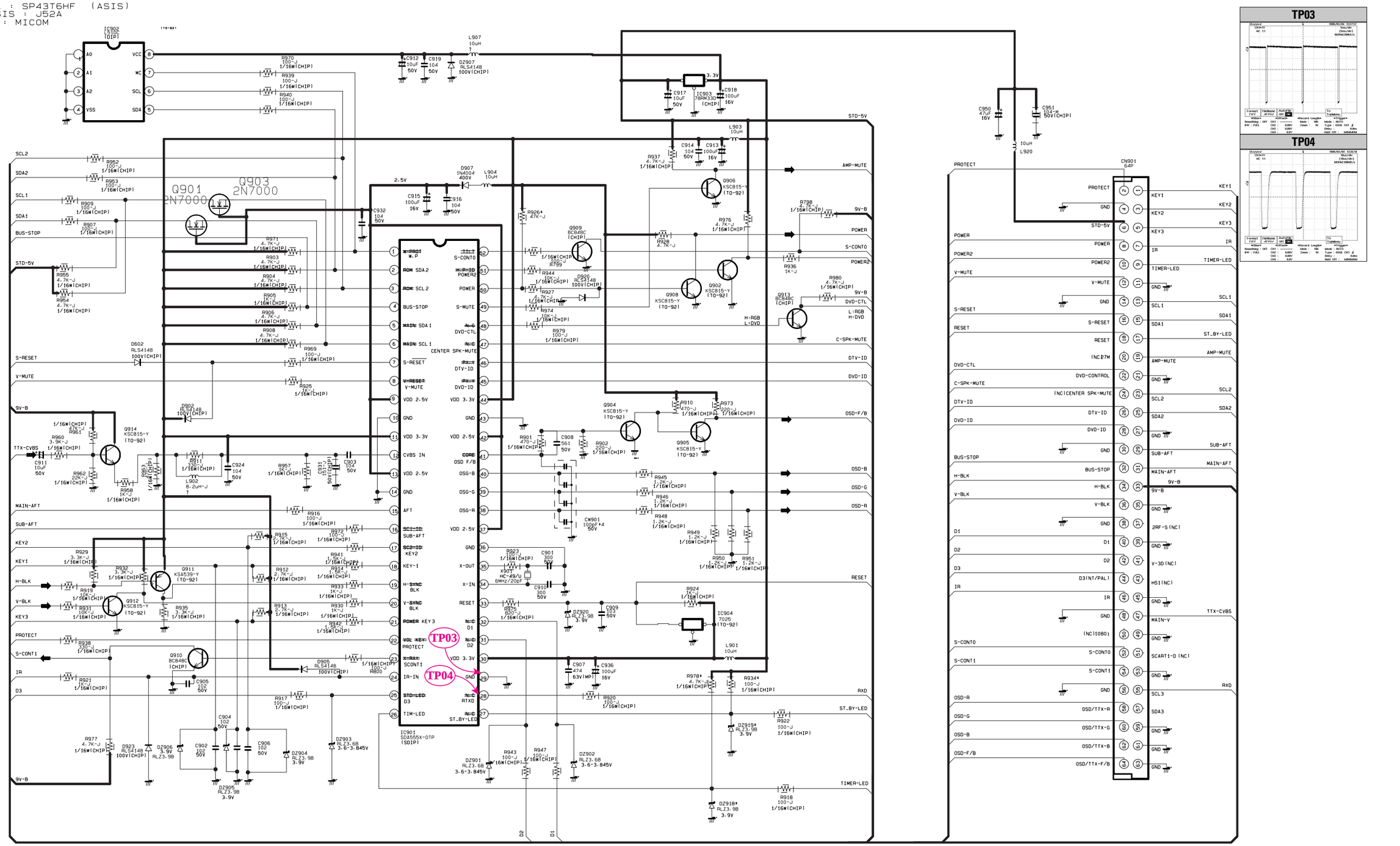

IC655
TDA7265
(ASSY-H/S)
CN602
5P
USE FOR CENTER SPK.
GND
GND
34V
34V
MUTE
CN601
4P
TO_SPEAKER
GND
R-OUT
GND
L-OUT
CNZ02
10P
TO_SUB(CONVERGENCE_AMP)
CNT01
32P
CNT02
32P
ICZ101
51-3050C
(ASSY-H/S)
ICZ102
KA7906
(TO-220)
CNZ01
32P
CONVERGENCE-MODULE
SURROUND-MUTE
VTX
RXD
AV2-L-IN
AV2-R-IN
SCL1
SDA1
RF-CVBS
9V
MAIN-R
MAIN-L
CENTER
EXT-L-IN
EXT-R-IN
SURROUND
MONITOR-R
MONIOR-L
AV1-L-IN
AV1-R-IN
AV1--L-OUT
AV-R-OUT
VD+
VD-
ABL
HD
34V
34V-GND
-8.5V
8.5V
EW
S-CONT1
S-CONTO
8V
13.5V
5V-D
12V
F/B-SW
STD-5V
SUB-MUTE
RF-Y
RF-C
PIP-CVBS
DTV-Y
DTV-Pr
DTV-Pb
DVD-Pr/2IP-R
DVD-Y/2IP-G
DVD-Pb/2IP-B
2IP-F/B
D1
D2
D3
IR
CENTER-MUTE
VD+
VD-
HD
DVD-IDENT
AMP-MUTE
3D-CVBS
DVD-CTRL
HSI
MAIN-C
MAIN-Y
CG-SYNC
CG-R
CG-G
CG-B
H-BLK
V-BLK
DTV-IDENT
ABL
E/W
TTX/CAP-CVBS
L-IN
R-IN
SOUND-R
SOUND-L
MAIN-L
MAIN-R
34V
34V-GND
STD-5V
AMP-MUTE
SUB-MUTE
13.5V
CENTER-MUTE
8.5V
-8.5V
5.4V
-5.4V
SDA1
SCL1
PIP-CVBS
TTX/CAP-CVBS
RF-CVBS
MAIN-C
MAIN-Y
F/B-SW
L603
CORE-F/B
GTM06
1P(AUTO)
Use For PROGRESSIVE
L604
CORE-F/B
L605
CORE-F/B
L112
CORE-F/B
C155
104
50V

10-5 MICOM(CS) with out, TTX

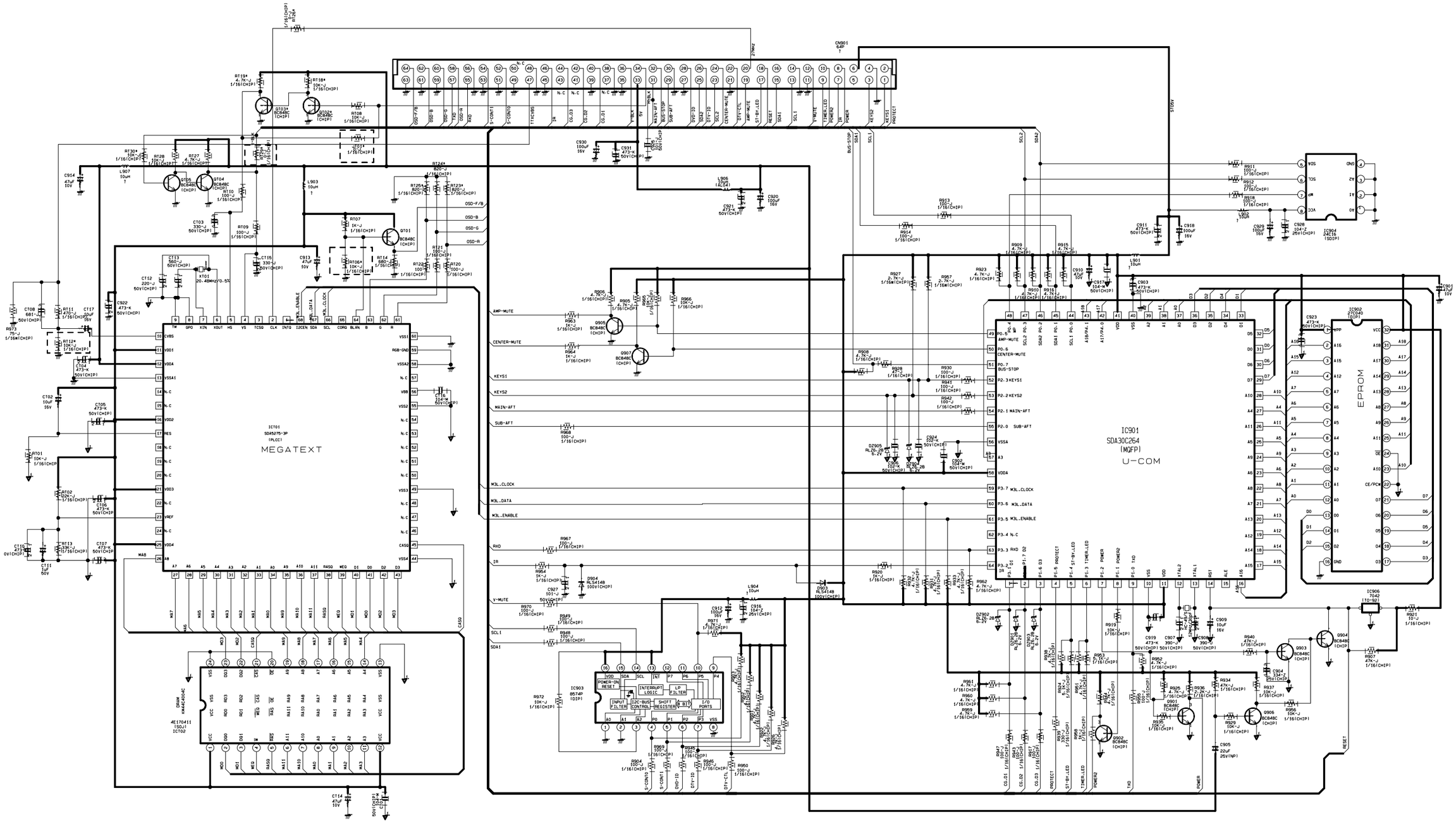




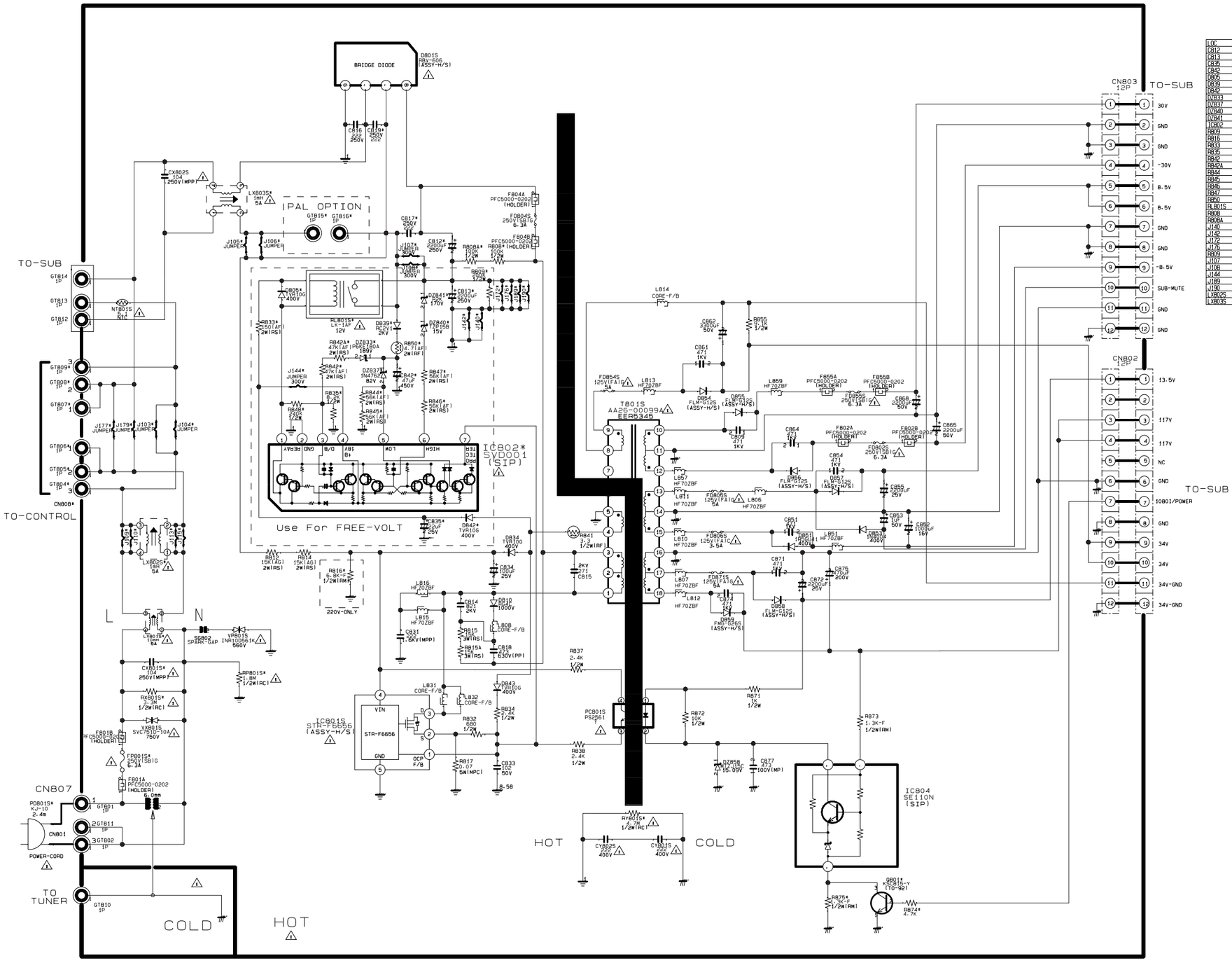
10-6 MICOM(CS) with in, TTX



10-7 MICOM(CW)

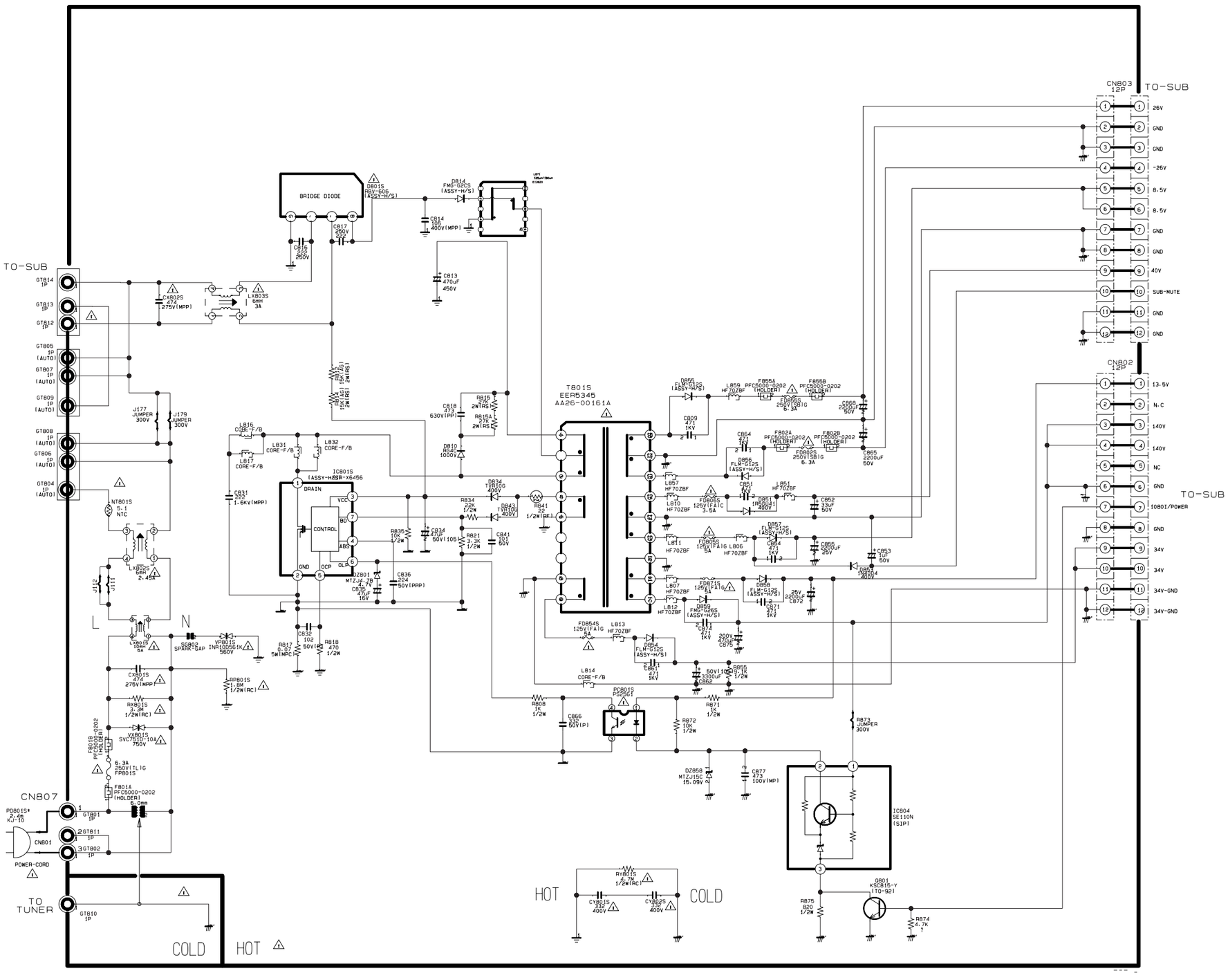

IC101
SDA5275-3P
(PLCC)
MEGATEXT
IC901
SDA30C264
(MQFP)
U-COM
IC902
24C16
(SOP)
EPROM
IC903
87AP
(DIP)
IC904
24C16
(SOP)
IC906
7042
(TO-92L)
DRAM
KM44C4004C
4E170411
150J1
ICT02
CN901
64P
2MHz
STDBY
RESET
AMP-MUTE
CENTER-MUTE
BUS-STOP
MAIN-AFT
SUB-AFT
KEYS1
KEYS2
M3L.CLOCK
M3L.DATA
M3L.ENABLE
OSD-F/B
OSD-G
OSD-R
S-CONT0
S-CONT1
DTY-1D
DTY-CTL
ST-BY-LED
TIMER-LED
POWER2
PROTECT
POWER
TXD
RXD
IR
V-MUTE
SCL1
SDA1

10-8 POWER

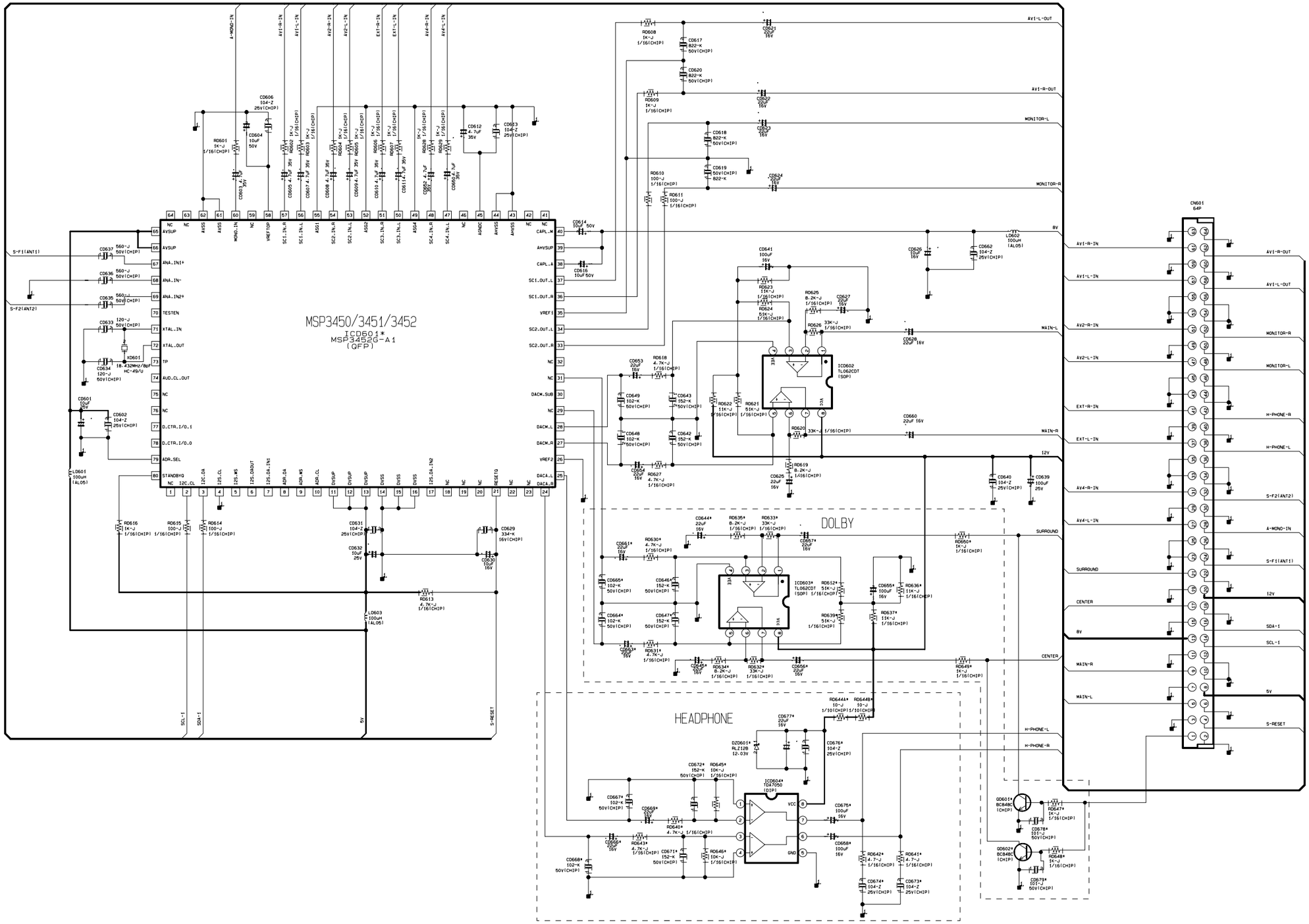


LOC	FREE	220V	120V
C812	2401-000701 2200uF 250V	2401-003465 680uF 450v	2401-000701 2200uF 250V
C813	2401-000701 2200uF 250V	DELETE	2401-000701 2200uF 250V
C835	2401-000030 22uF 25V	DELETE	DELETE
C842	2401-003370 47uF 450V	DELETE	DELETE
D805	0402-000546 TVR10G	DELETE	DELETE
D839	0405-000243 RC-Y1	DELETE	DELETE
D842	0402-000545 TVR10G	DELETE	DELETE
DZ833	0406-001007 PRKE180A	DELETE	DELETE
DZ837	0403-000170 1N4750	DELETE	DELETE
DZ840	0403-001029 MAZ560	DELETE	DELETE
DZ841	0403-000691 RZK 170V	DELETE	DELETE
IC802	AA13-00031A IC-HYBRID SYD001	DELETE	DELETE
R809	2001-000002 200K 1/2W(CARBON)	DELETE	DELETE
R816	2004-004029 10K 1/2W-F(METAL)	2004-004029 10K 1/2W-F(METAL)	DELETE
R833	2003-001024 150 2W(METAL)	DELETE	DELETE
R835	2001-001188 8.2K 1/2W(CARBON)	DELETE	DELETE
R842	2003-001040 47K 2W(METAL)	DELETE	DELETE
R842A	2003-001040 47K 2W(METAL)	DELETE	DELETE
R844	2003-002020 56K 2W(METAL)	DELETE	DELETE
R845	2003-002020 56K 2W(METAL)	DELETE	DELETE
R846	2003-002020 56K 2W(METAL)	DELETE	DELETE
R847	2003-002020 56K 2W(METAL)	DELETE	DELETE
R850	2008-001079 4.7 2W OF(FUSIBLE)	DELETE	DELETE
RL801S	3501-001040 RELAY-POWER 12VDC	DELETE	DELETE
R808	2001-000095 100K 1/2W(CARBON)	2001-000002 200K 1/2W(CARBON)	2001-000095 100K 1/2W(CARBON)
R808A	2001-000095 100K 1/2W(CARBON)	2001-000002 200K 1/2W(CARBON)	2001-000095 100K 1/2W(CARBON)
J140	3812-000219 JUMPER	DELETE	3812-000219 JUMPER
J142	3812-000219 JUMPER	DELETE	3812-000219 JUMPER
J172	DELETE	3812-000219 JUMPER	DELETE
J176	DELETE	3812-000219 JUMPER	DELETE
R809	2001-000002 200K 1/2W(CARBON)	DELETE	2001-000002 200K 1/2W(CARBON)
J107	DELETE	DELETE	3812-000219 JUMPER
J108	DELETE	DELETE	3812-000219 JUMPER
J144	3812-000219 JUMPER	DELETE	DELETE
J189	DELETE	3812-000219 JUMPER	DELETE
J190	DELETE	3812-000219 JUMPER	DELETE
LX802S	AA29-30002M 1mH 5A	AA29-30002F 6mH 2.5A	AA29-30002M 1mH 5A
LX803S	AA29-30002M 1mH 5A	AA29-00008A 6mH 3A	AA29-30002M 1mH 5A

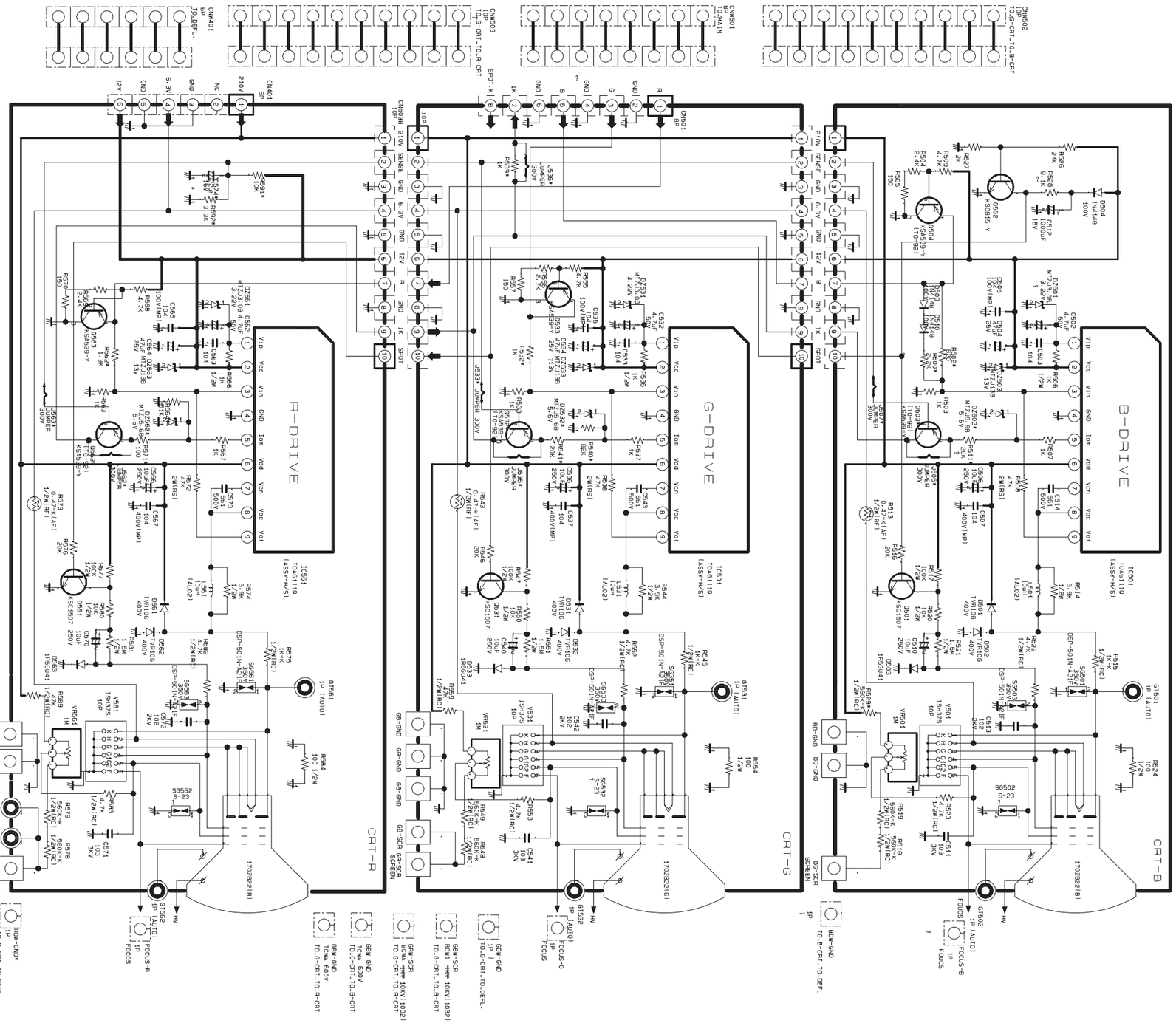
10-9 POWER with in PFC



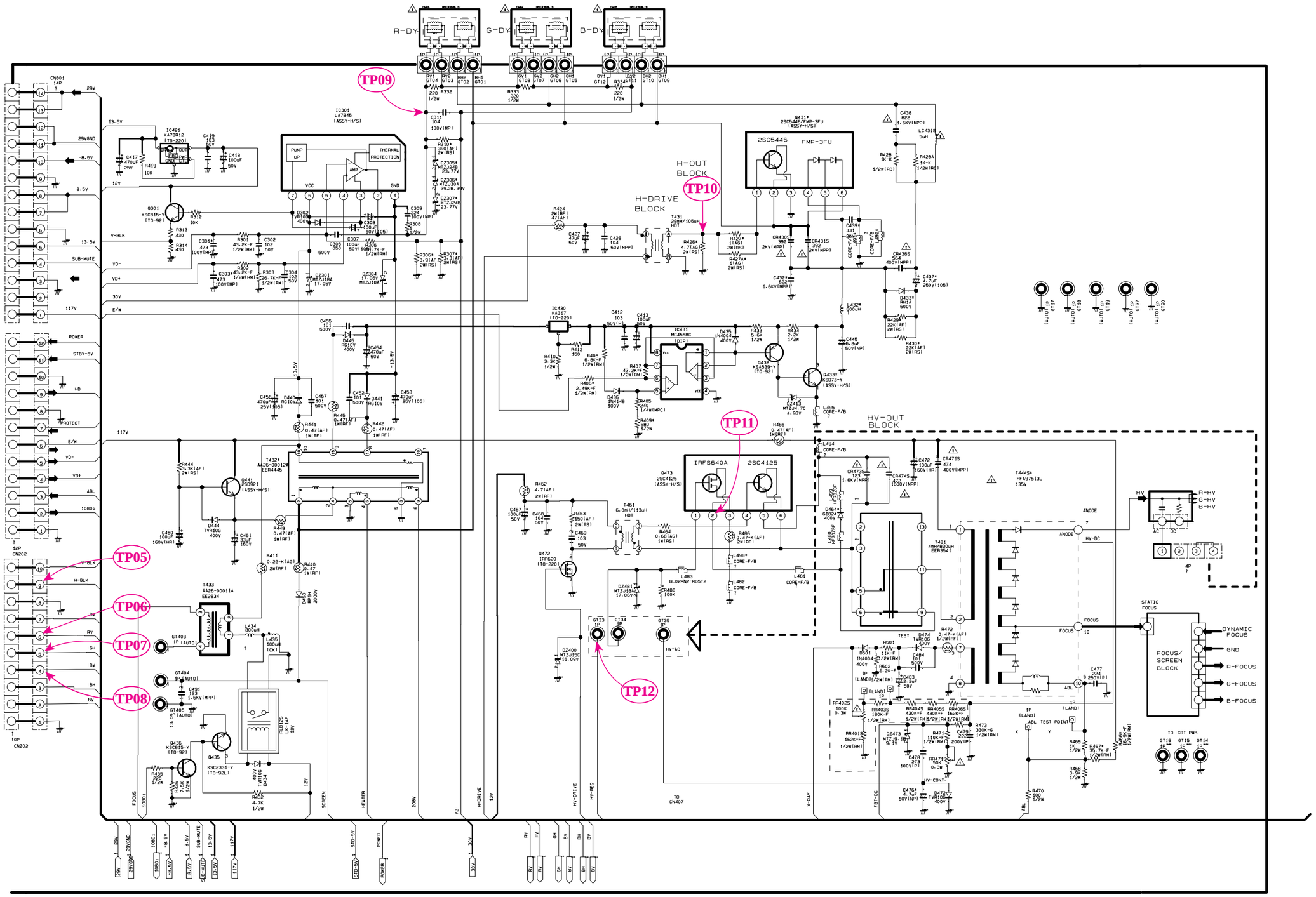
10-10 SOUND


MSP3450/3451/3452
ICD601*
MSP3452G-A1
(QFP)
DOLBY
HEADPHONE
CN601
64P
AV1-L-OUT
AV1-R-OUT
MONITOR-L
MONITOR-R
MAIN-L
MAIN-R
SURROUND
CENTER
H-PHONE-L
H-PHONE-R
12V
8V
5V
S-RESET
SCL-1
SDA-1
S-F1(ANT1)
S-F2(ANT2)
A-MONO-IN
AV1-R-IN
AV1-L-IN
AV2-R-IN
AV2-L-IN
EXT-R-IN
EXT-L-IN
AV4-R-IN
AV4-L-IN

10-11 CRT

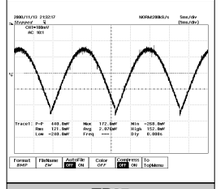

R-DRIVE
G-DRIVE
B-DRIVE
CRT-R
CRT-G
CRT-B
CN401
CN5038
CN501
CN502
CN503
IC561
IC531
IC501
TDA5110
(ASSY-H/S)
VR561
VR531
VR501
170ZB22I(R)
170ZB22I(G)
170ZB22I(B)
GT561
GT562
GT563
GT564
GT531
GT532
GT501
GT502
SG561
SG562
SG563
SG564
SG531
SG532
SG501
SG502
SG503
SG504
DSP-501N-421F
DSP-501N-321F
Q561
Q562
Q563
Q564
Q531
Q532
Q533
Q534
Q501
Q502
Q503
Q504
KSA539-Y
KSC1507
KSC1815-Y
DZ561
DZ562
DZ563
DZ564
DZ531
DZ532
DZ533
DZ534
DZ501
DZ502
DZ503
DZ504
D561
D562
D563
D564
D531
D532
D533
D534
D501
D502
D503
D504
TVR10G
1N4148
1N5404
1N5047
R561*
R562*
R563*
R564*
R565*
R566*
R567*
R568*
R569*
R570*
R571*
R572*
R573*
R574*
R575*
R576*
R577*
R578*
R579*
R580*
R581*
R582*
R583*
R584*
R585*
R586*
R587*
R588*
R589*
R590*
R591*
R592*
R593*
R594*
R595*
R596*
R597*
R598*
R599*
R5100*

10-12 SUB 1

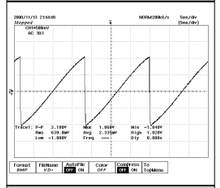

TP09
TP10
TP11
TP12
TP05
TP06
TP07
TP08
R-DY
G-DY
B-DY
H-OUT BLOCK
H-DRIVE BLOCK
HV-OUT BLOCK
2SC5446
FMP-3FU
IRFS640A
2SC4125
CN801
14P
CN202
10P
CN207
12P
29V
29VGND
-8.5V
8.5V
13.5V
12V
117V
V-BLK
SUB-MUTE
VD-
VD+
30V
E/W
POWER
STBY-5V
HD
PROTECT
ABL
108D1
H-BLK
RV
GH
BV
BH
IC301
LA7845
(ASSY-H/S)
PUMP UP
THERMAL PROTECTION
VCC
GND
AMP
IC421
KA78R12
(TO-220)
Q301
KSC815-Y
(TO-92)
Q311
2SC5446/FMP-3FU
(ASSY-H/S)
T431
28MH/105uH
HOT
IC430
KA317
(TO-220)
IC431
MC4558C
(DIP)
Q438
KSA539-Y
(TO-92)
Q433*
KSD73-Y
(ASSY-H/S)
T432*
AA26-00012A
EER4445
Q441
2SD821
(ASSY-H/S)
T433
AA26-00011A
EE2834
Q435
KSC2331-Y
(TO-92L)
Q436
KSC815-Y
(TO-92)
Q444
TYR10G
400V
Q473
2SC4125
(ASSY-H/S)
T461
6.0MH/113uH
HOT
Q472
IRF620
(TO-220)
T481
4mH/830uH
EER3541
T4445*
FF497513L
135V
D464
G1B24
400V
D501
1N4004
400V
Q474
TYR10G
400V
Q478*
TYR10G
400V
ANODE
HV-DC
FOCUS
STATIC FOCUS
FOCUS/ SCREEN BLOCK
DYNAMIC FOCUS
GND
R-FOCUS
G-FOCUS
B-FOCUS
R-HV
G-HV
B-HV
HV
TO CRT PWB
ABL TEST POINT
HV-CONT.
TEST
TO CN407
X-RAY
FBT-DC
HV-AC
SCREEN
HEATER
208V
H-DRIVE
HV-DRIVE
HV-REG
STD-5V
POWER

10-12-1 SUB 1 WAVEFORMS

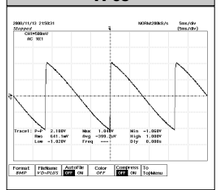
TP06



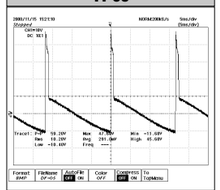
TP07



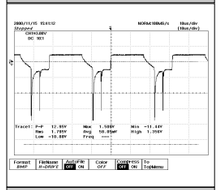
TP08



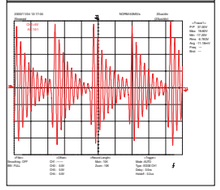
TP09



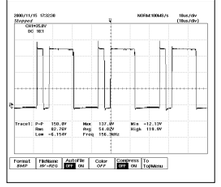
TP10



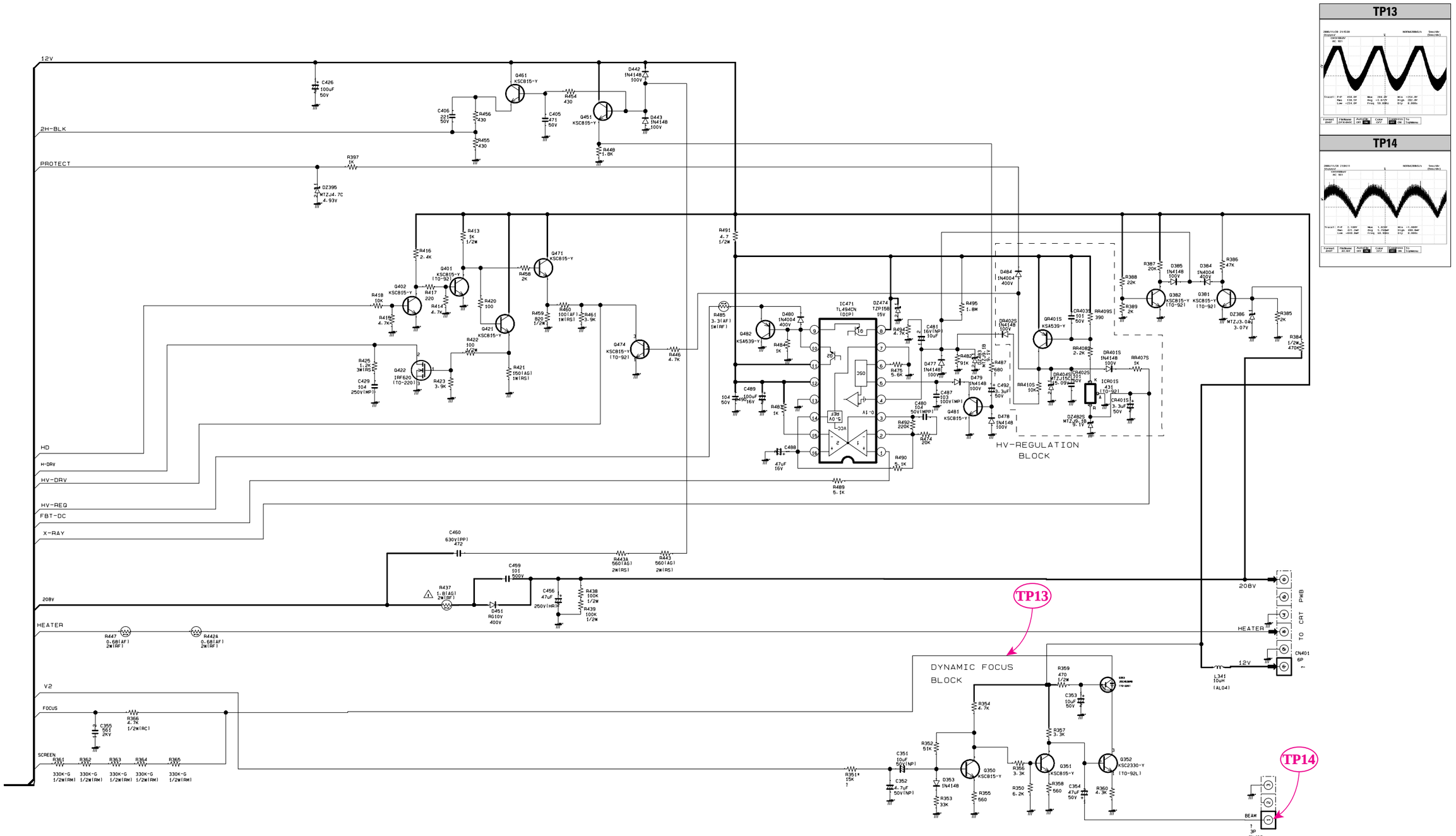
TP11



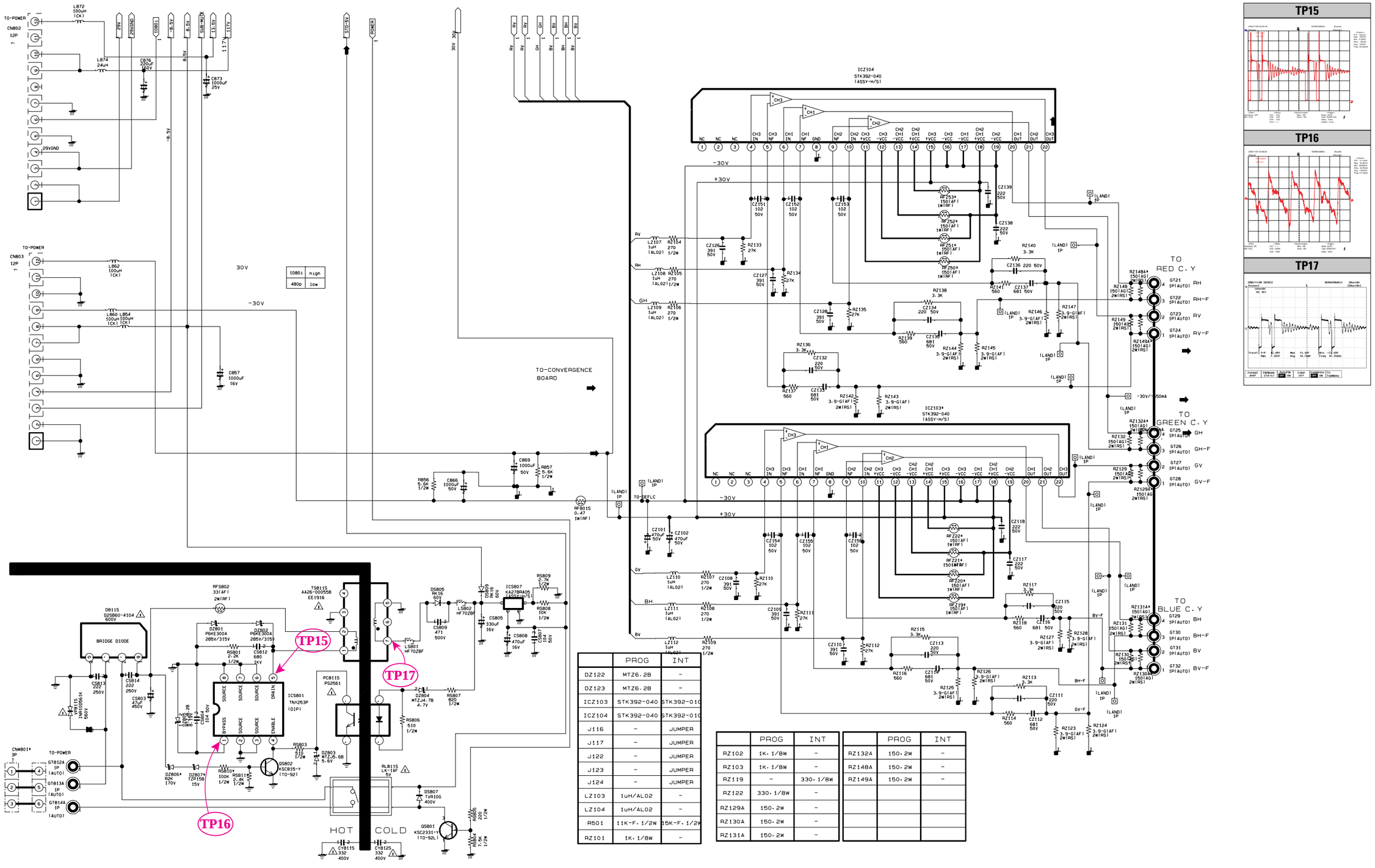
TP12



10-13 SUB 2


TP13
TP14
12V
2H-BLK
PROTECT
HD
H-DRV
HV-DRV
HV-REQ
FBT-DC
X-RAY
208V
HEATER
V2
FOCUS
SCREEN
HV-REGULATION BLOCK
DYNAMIC FOCUS BLOCK
TO CRT PWB
CN401 6P
BEAM
CN403
L341 10uH (AL04)
IC471 TL494CN (DIP)

10-14 SUB 3



	PROG	INT
DZ122	MTZ6.2B	-
DZ123	MTZ6.2B	-
ICZ103	STK392-040	STK392-010
ICZ104	STK392-040	STK392-010
J116	-	JUMPER
J117	-	JUMPER
J122	-	JUMPER
J123	-	JUMPER
J124	-	JUMPER
LZ103	1uH/AL02	-
LZ104	1uH/AL02	-
R501	11K-F.1/2W	15K-F.1/2W
RZ101	1K.1/8W	-

	PROG	INT
RZ102	1K.1/8W	-
RZ103	1K.1/8W	-
RZ119	-	330.1/8W
RZ122	330.1/8W	-
RZ129A	150.2W	-
RZ130A	150.2W	-
RZ131A	150.2W	-

	PROG	INT
RZ132A	150.2W	-
RZ148A	150.2W	-
RZ149A	150.2W	-

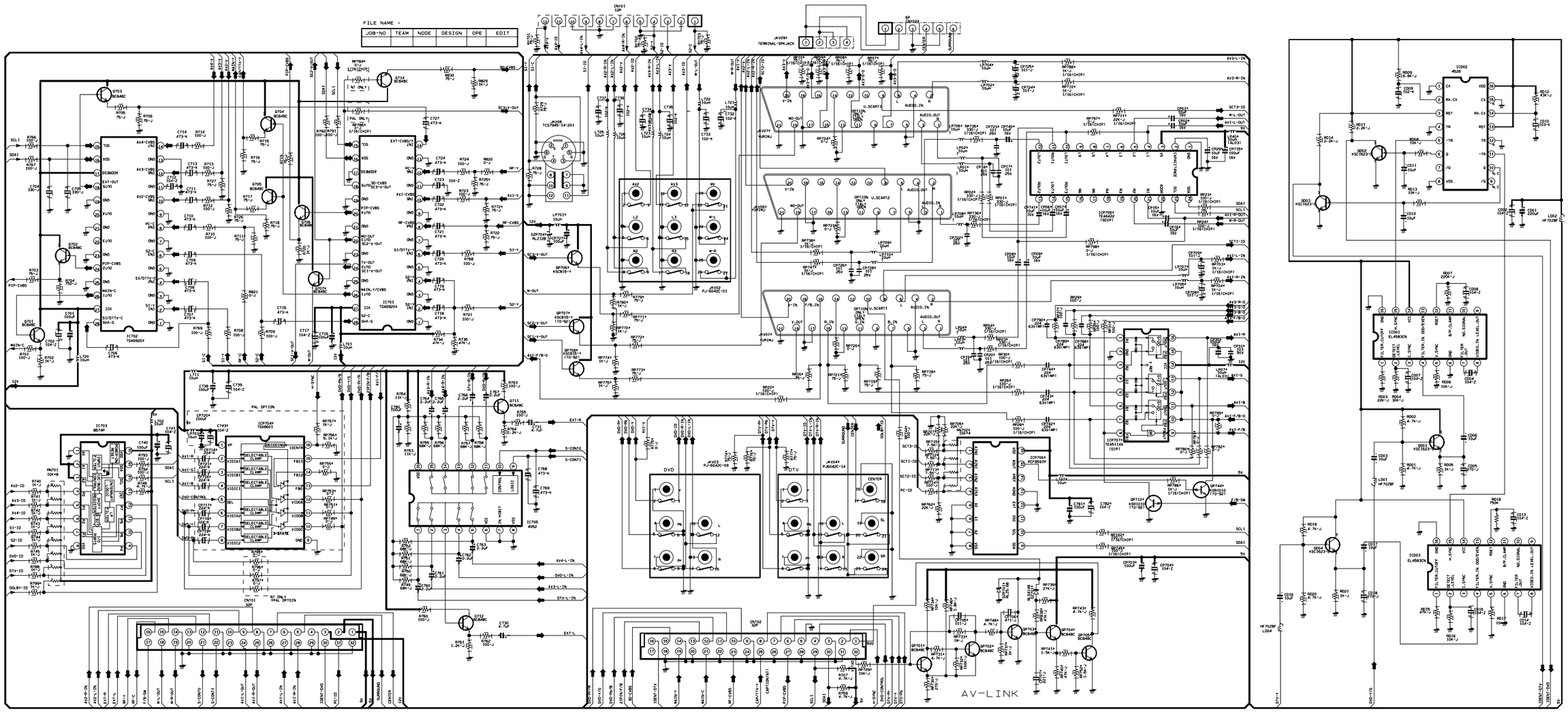
1080i	high
480p	low

TP15

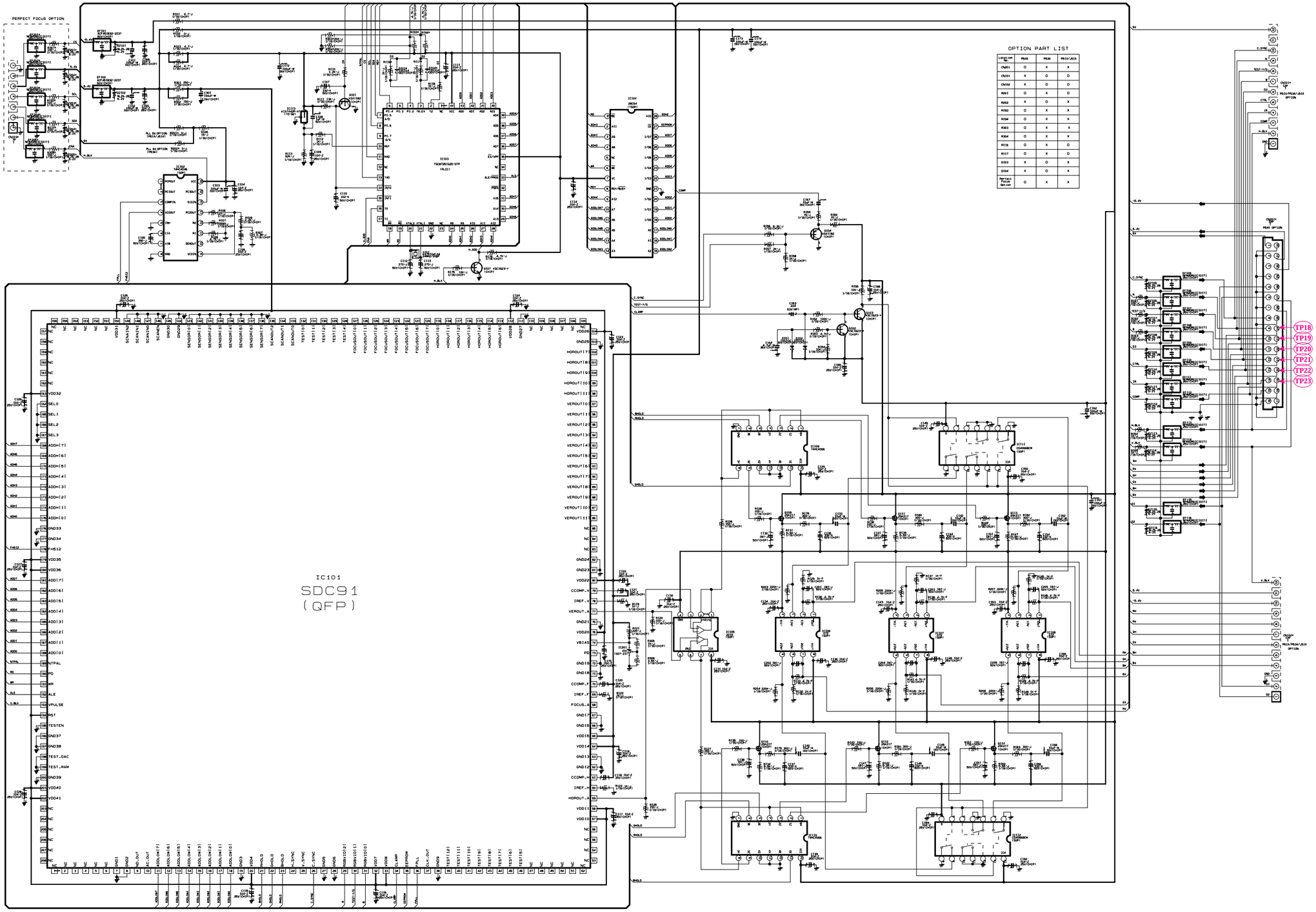
TP16

TP17

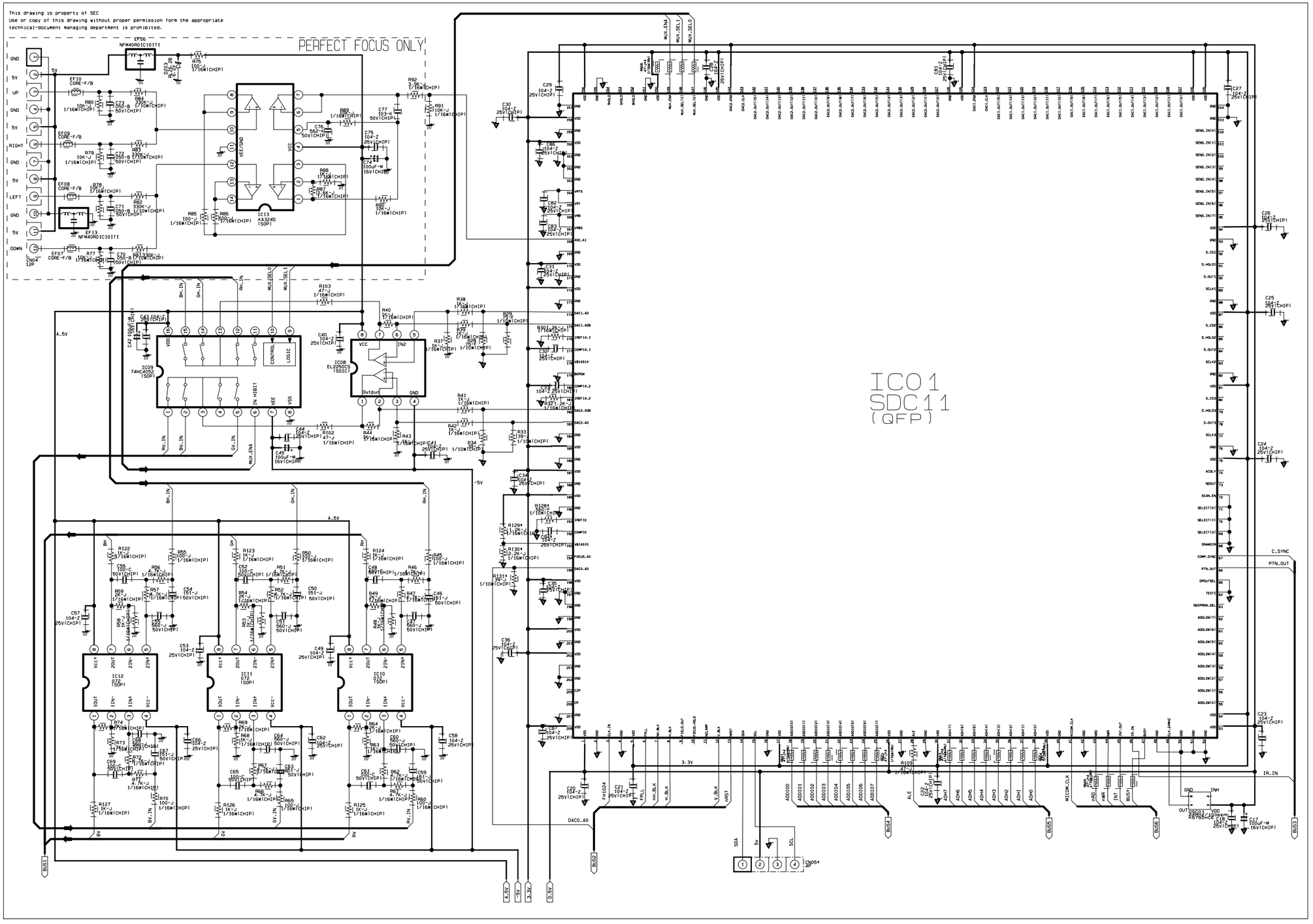
10-15 A/V TERMINAL



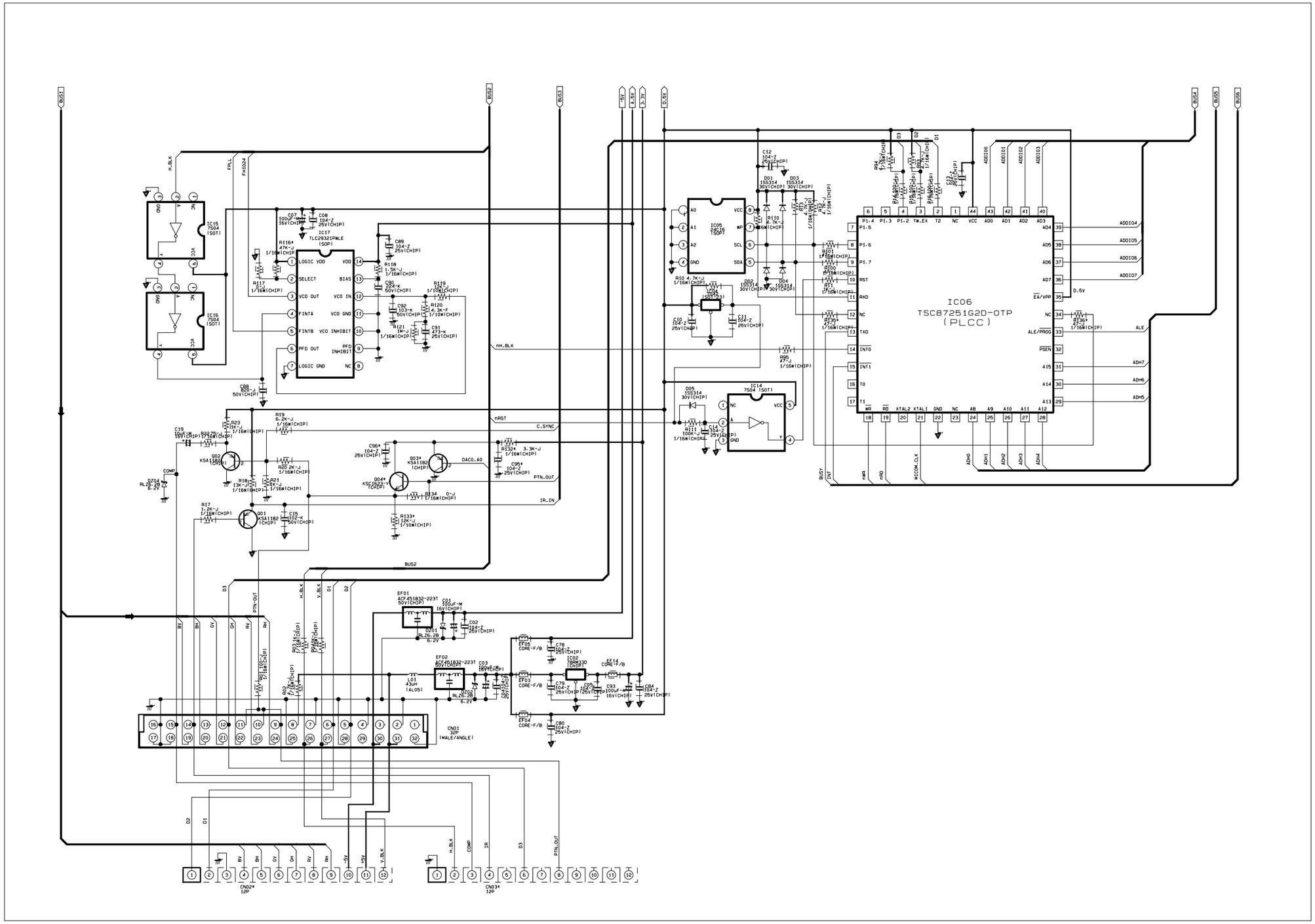
10-16 CONVERGENCE



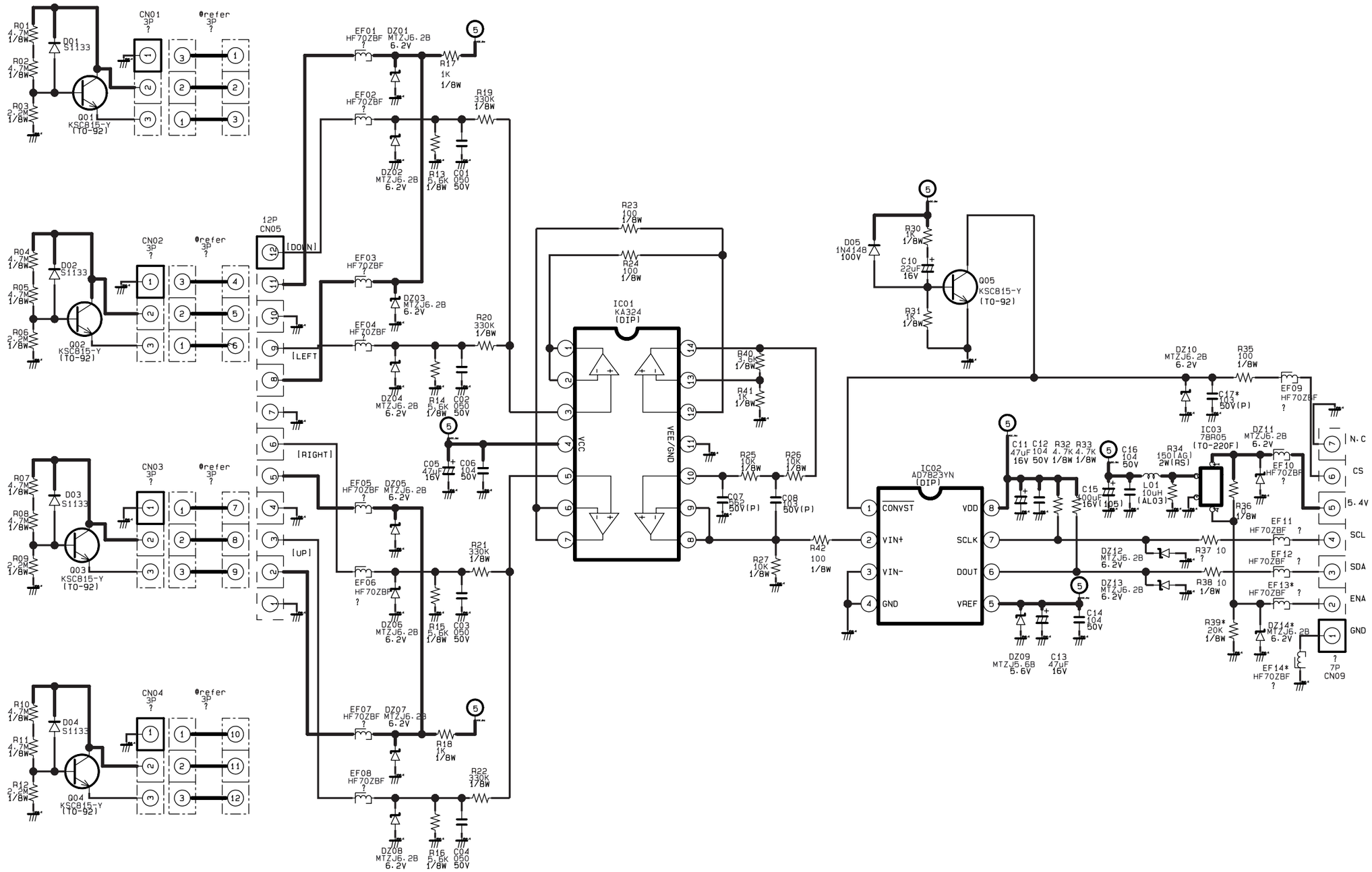
10-17 CONVERGENCE(SDC11 1/2)



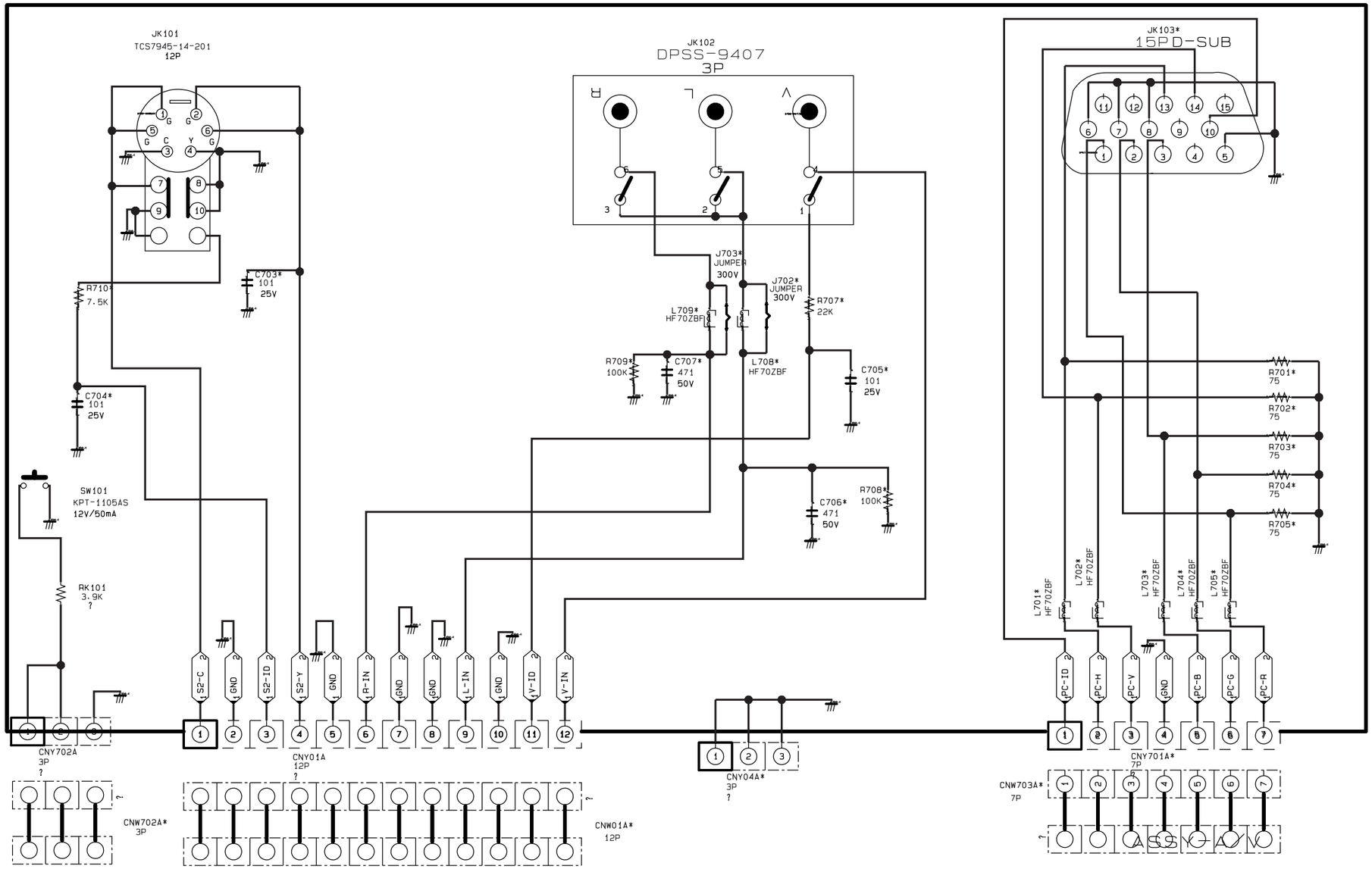
10-18 CONVERGENCE(SDC11 2/2)



10-19 PERFECT FOCUS (PHOTO SENSOR & INTERFACE BOARD)

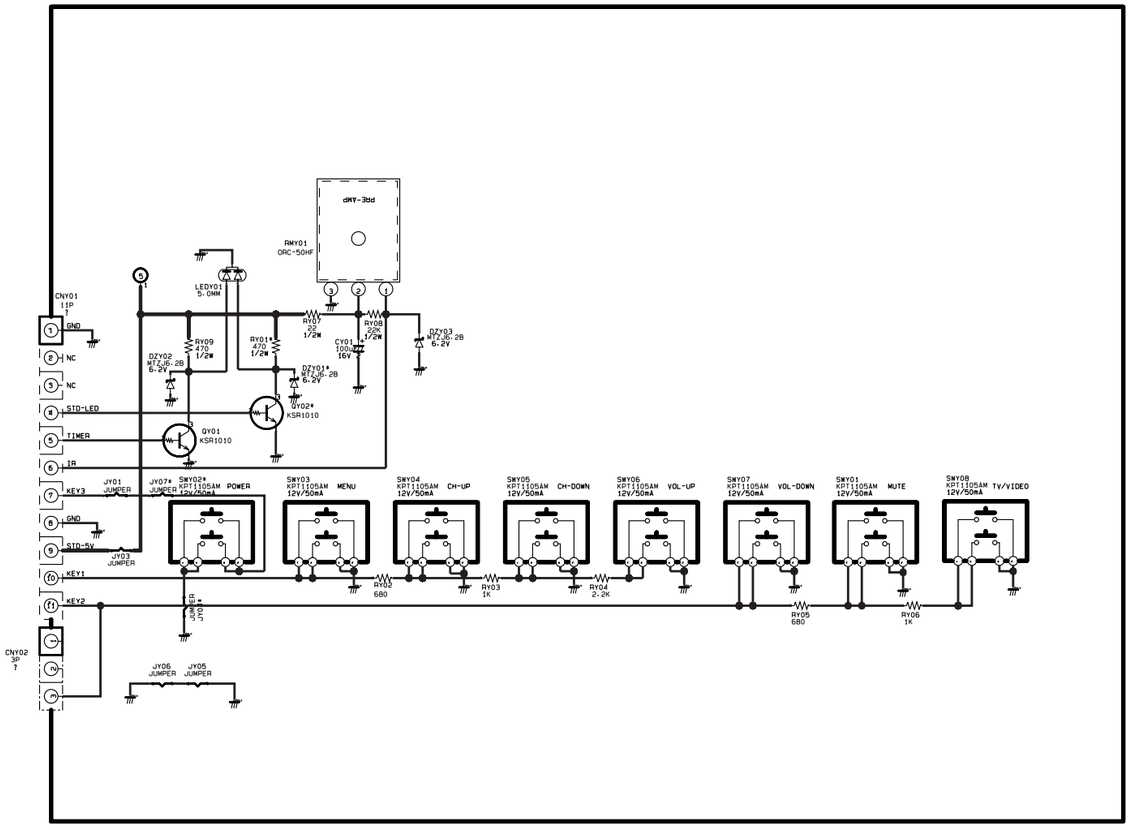


10-20 AV FRONT

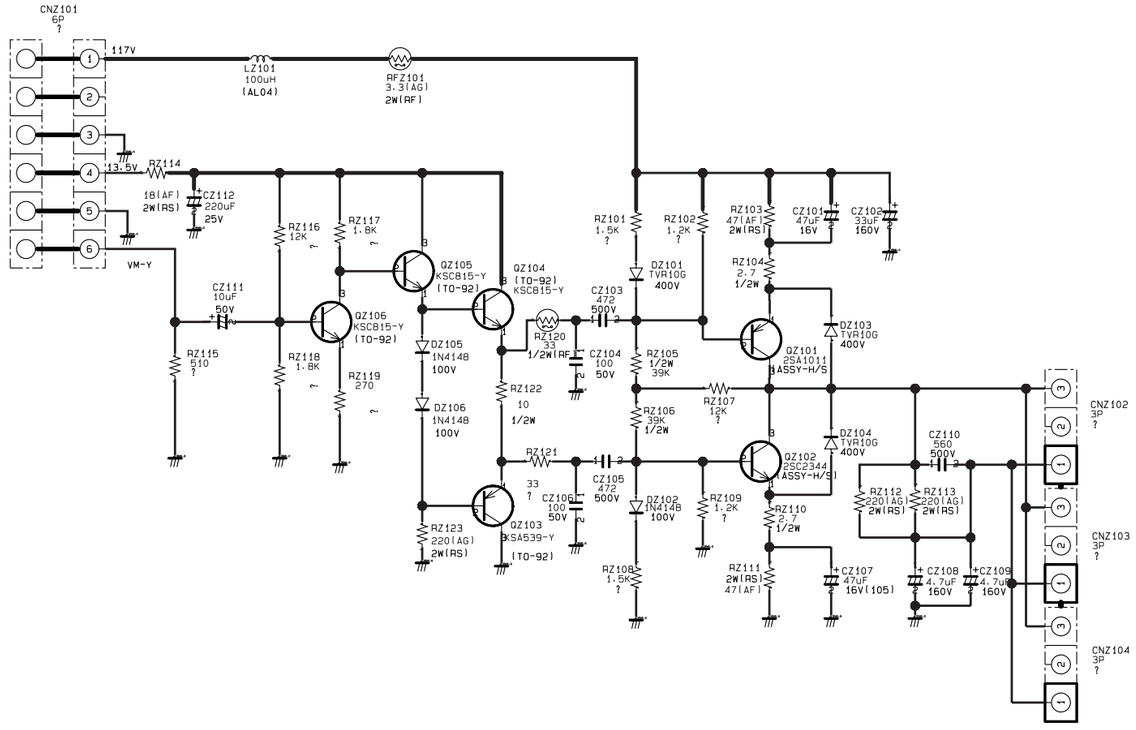


10-21 CONTROL, VM

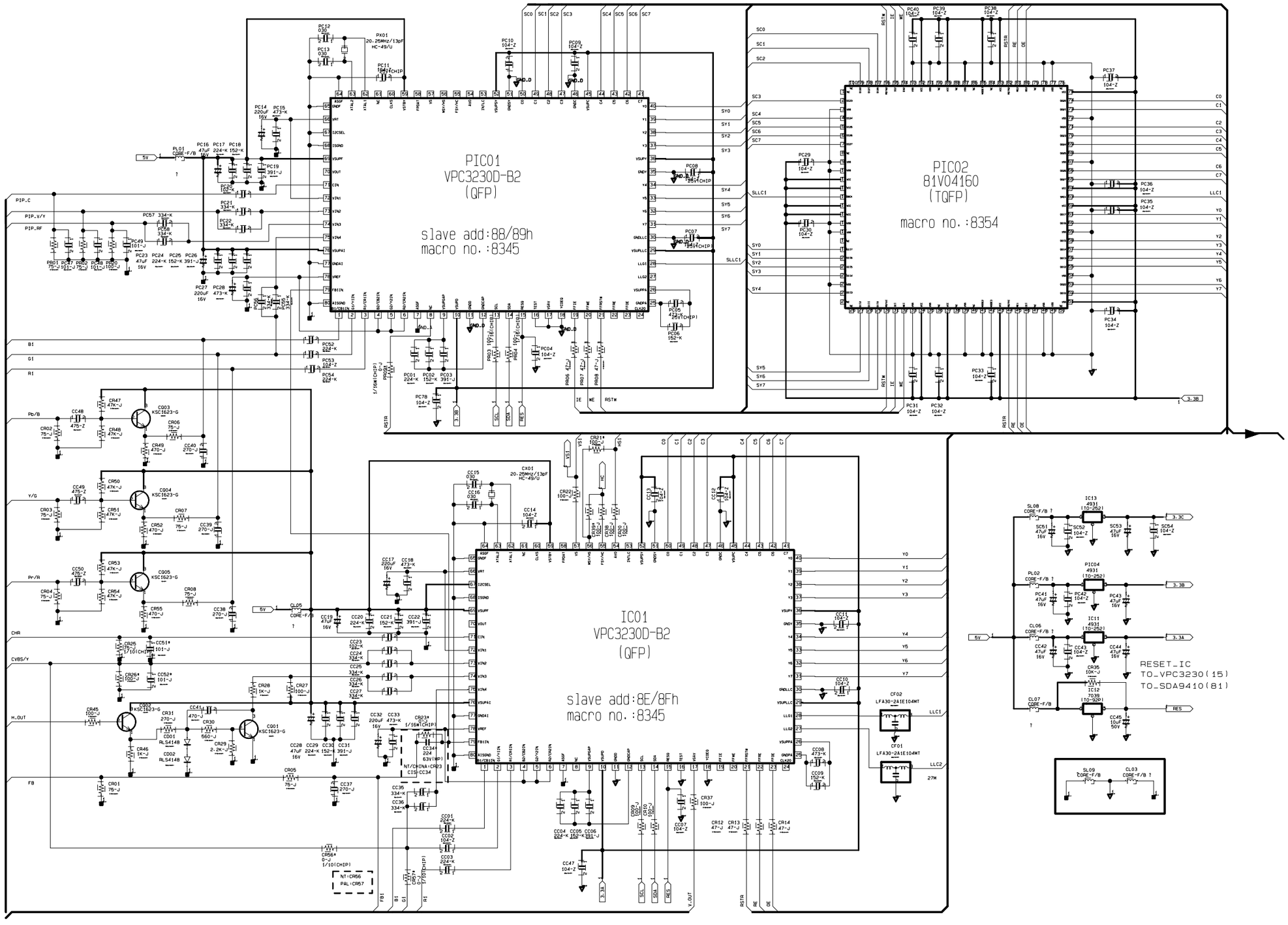
CONTROL



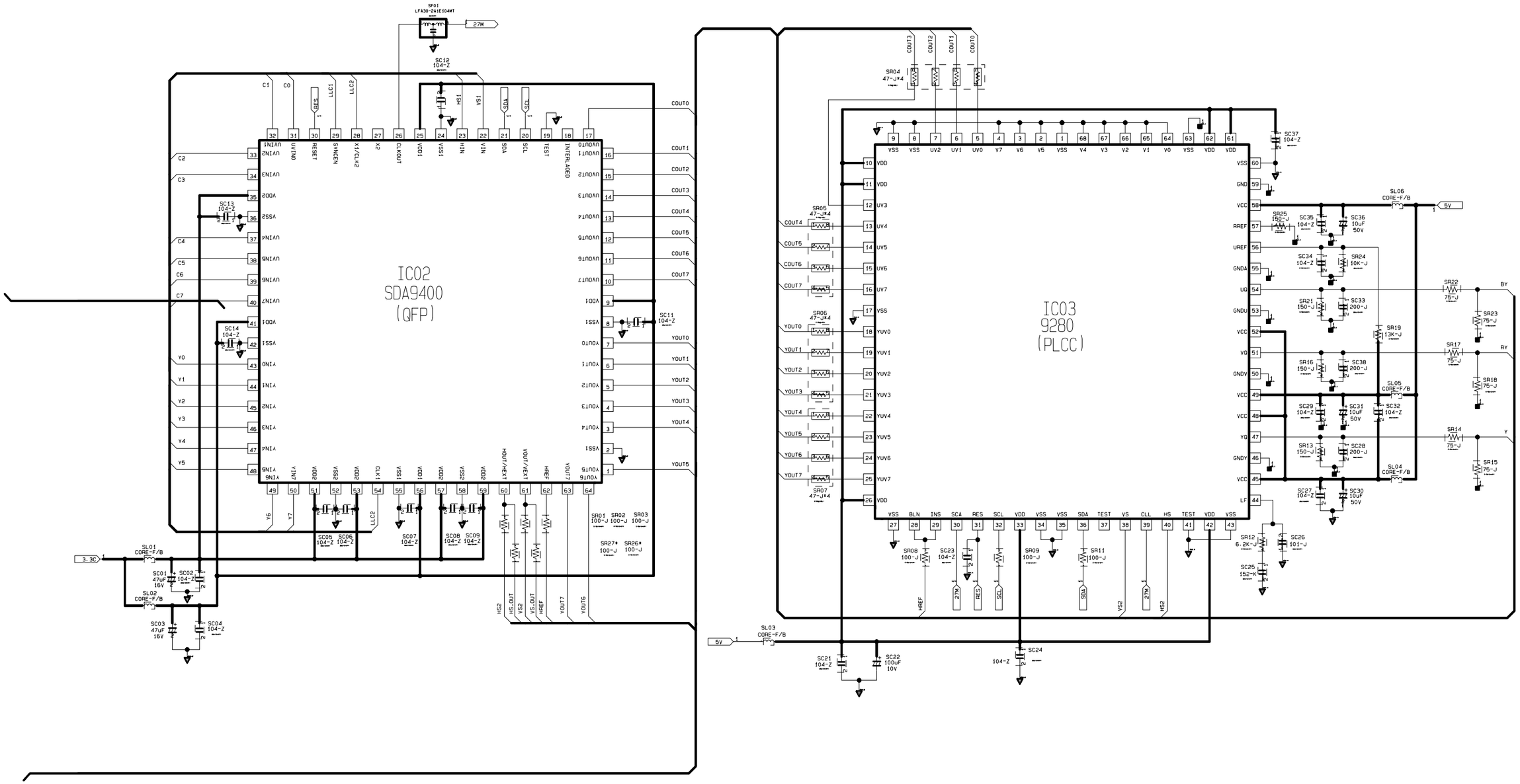
VM



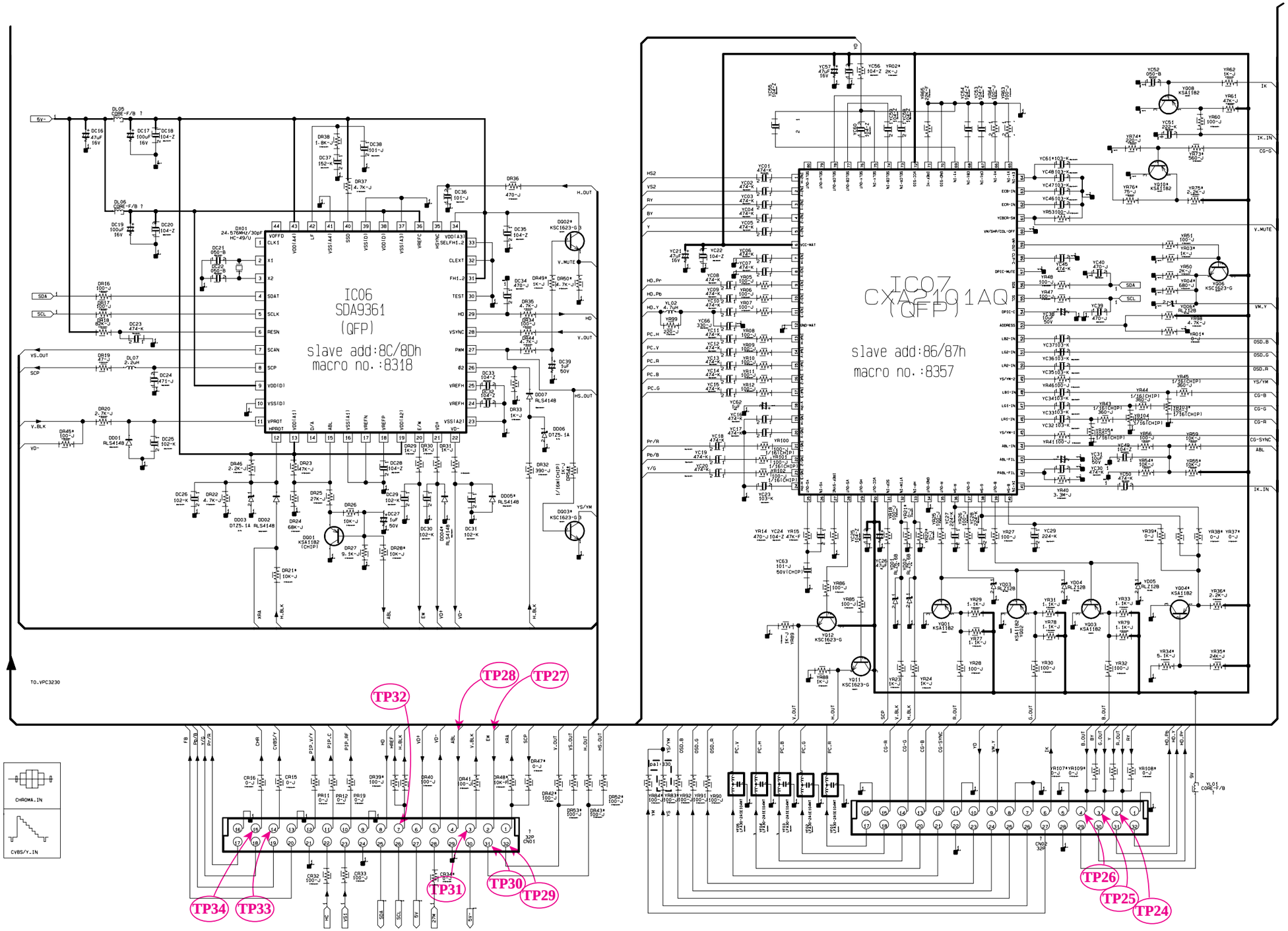
10-22 DW 1


PIC01
VPC3230D-B2
(QFP)
slave add:8E/8Fh
macro no.:8345
PIC02
81V04160
(TQFP)
macro no.:8354
IC01
VPC3230D-B2
(QFP)
slave add:8E/8Fh
macro no.:8345
PIC04
4931
(10-252)
IC13
4931
(10-252)
IC11
4931
(10-252)
IC12
7038
(10-520)
RESET_IC
TO_VPC3230(15)
TO_SDA9410(81)
PIP_C
PIP_V/Y
PIP_RF
Pb/B
Y/G
Pr/R
CHR
CVBS/Y
H_OUT
FB
B1
G1
R1
5V
3.3C
3.3B
3.3A
RES
LLC1
LLC2
27M

10-23 DW 2

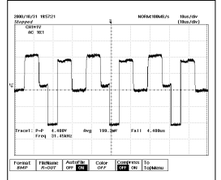

IC02
SDA9400
(QFP)
IC03
9280
(PLCC)
SF01
LFA30-2A1E1D4MT
27M
SC12
104-Z
SC13
104-Z
SC14
104-Z
SC11
104-Z
SL01
CORE-F/B
SL02
CORE-F/B
SL03
CORE-F/B
SL04
CORE-F/B
SL05
CORE-F/B
SL06
CORE-F/B
3.3C
5V
6V
SC01
47uF
16V
SC02
104-Z
SC03
47uF
16V
SC04
104-Z
SC05
104-Z
SC06
104-Z
SC07
104-Z
SC08
104-Z
SC09
104-Z
SR01
100-J
SR02
100-J
SR03
100-J
SR04
47-J*4
SR05
47-J*4
SR06
47-J*4
SR07
47-J*4
SR08
100-J
SC23
104-Z
SR09
100-J
SR11
100-J
SR12
6.2K-J
SC26
101-J
SC25
152-K
SC21
104-Z
SC22
100uF
10V
SC24
104-Z
SC37
104-Z
SR25
150-J
SC35
104-Z
SC36
10uF
50V
SC34
104-Z
SR24
10K-J
SR22
75-J
SC33
200-J
SR21
150-J
SR19
13K-J
SR17
75-J
SC38
200-J
SR16
150-J
SC29
104-Z
SC31
10uF
50V
SC32
104-Z
SR14
75-J
SC28
200-J
SR13
150-J
SC27
104-Z
SC30
10uF
50V
SR23
75-J
SR18
75-J
SR15
75-J
BY
RY
Y
COUT0
COUT1
COUT2
COUT3
COUT4
COUT5
COUT6
COUT7
YOUT0
YOUT1
YOUT2
YOUT3
YOUT4
YOUT5
YOUT6
YOUT7
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
C0
C1
C2
C3
C4
C5
C6
C7
REF
SCL
SDA
HS2
VS2
HREF
RES

10-24 DW 3

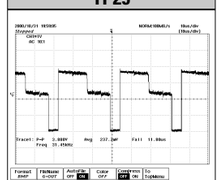

IC06
SDA9361
(QFP)
slave add:8C/8Dh
macro no.:8318
IC07
CXA2191AQ
(QFP)
slave add:86/87h
macro no.:8357
TP34
TP33
TP32
TP31
TP30
TP29
TP28
TP27
TP26
TP25
TP24
TO.VPC3230
CHROMA.IN
CVBS/Y.IN

10-24-1 DW 3 WAVEFORMS

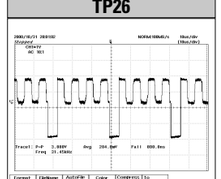
TP24



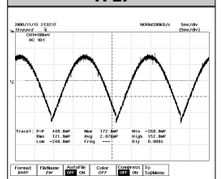
TP25



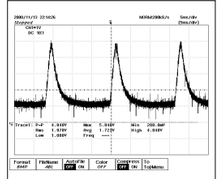
TP26



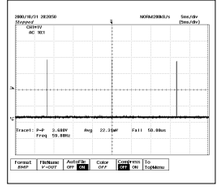
TP27



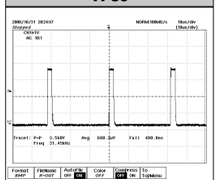
TP28



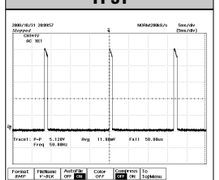
TP29



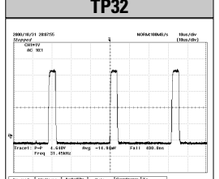
TP30



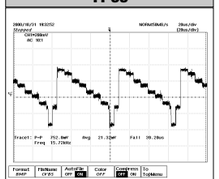
TP31



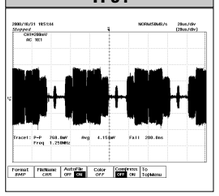
TP32



TP33

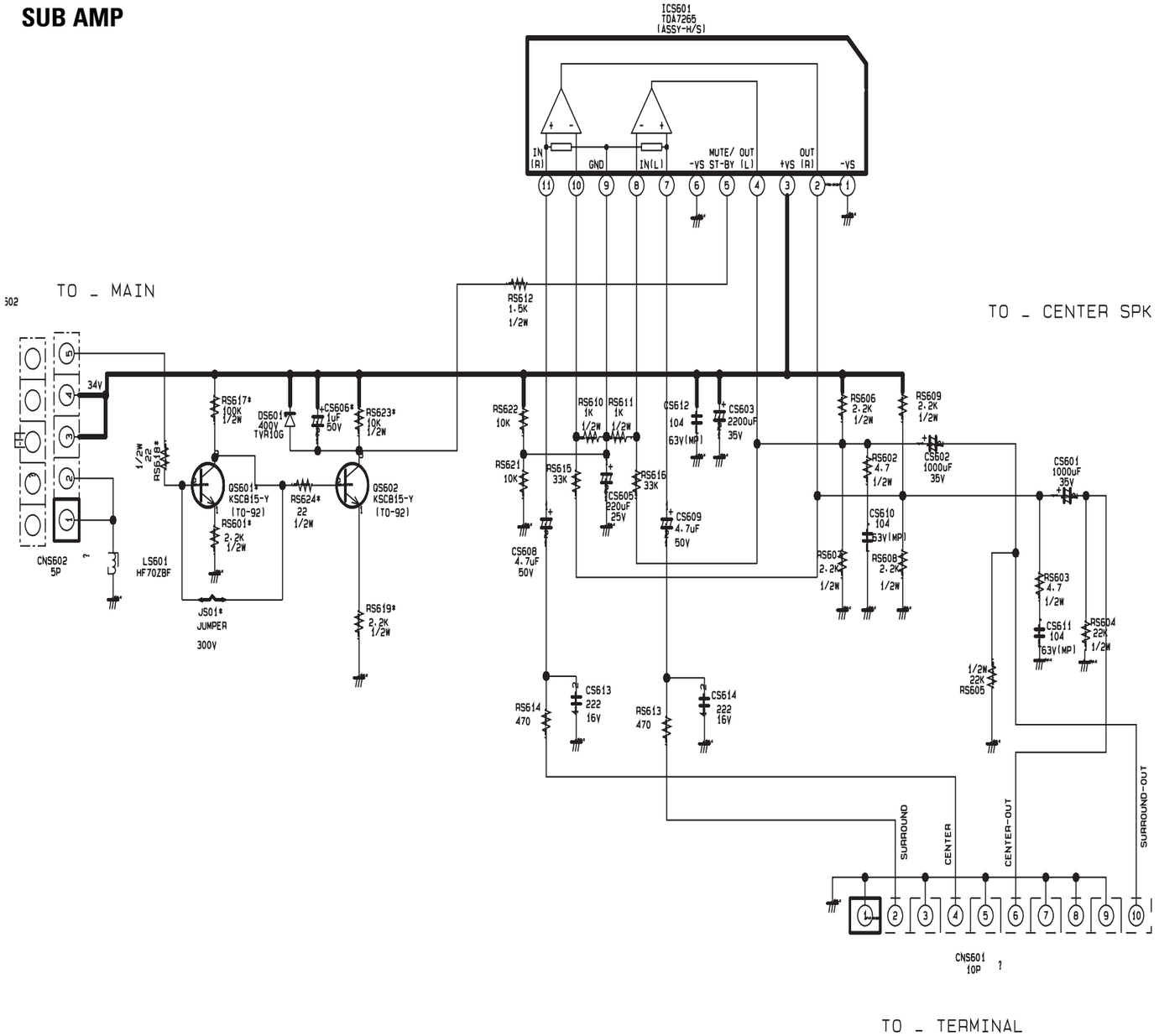


TP34

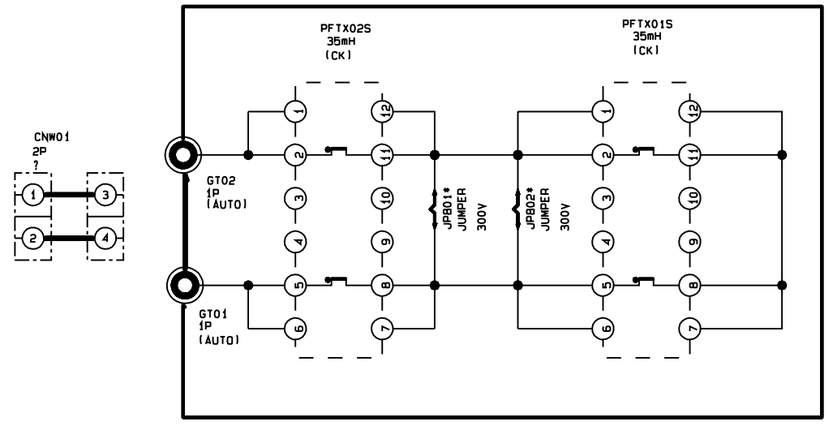
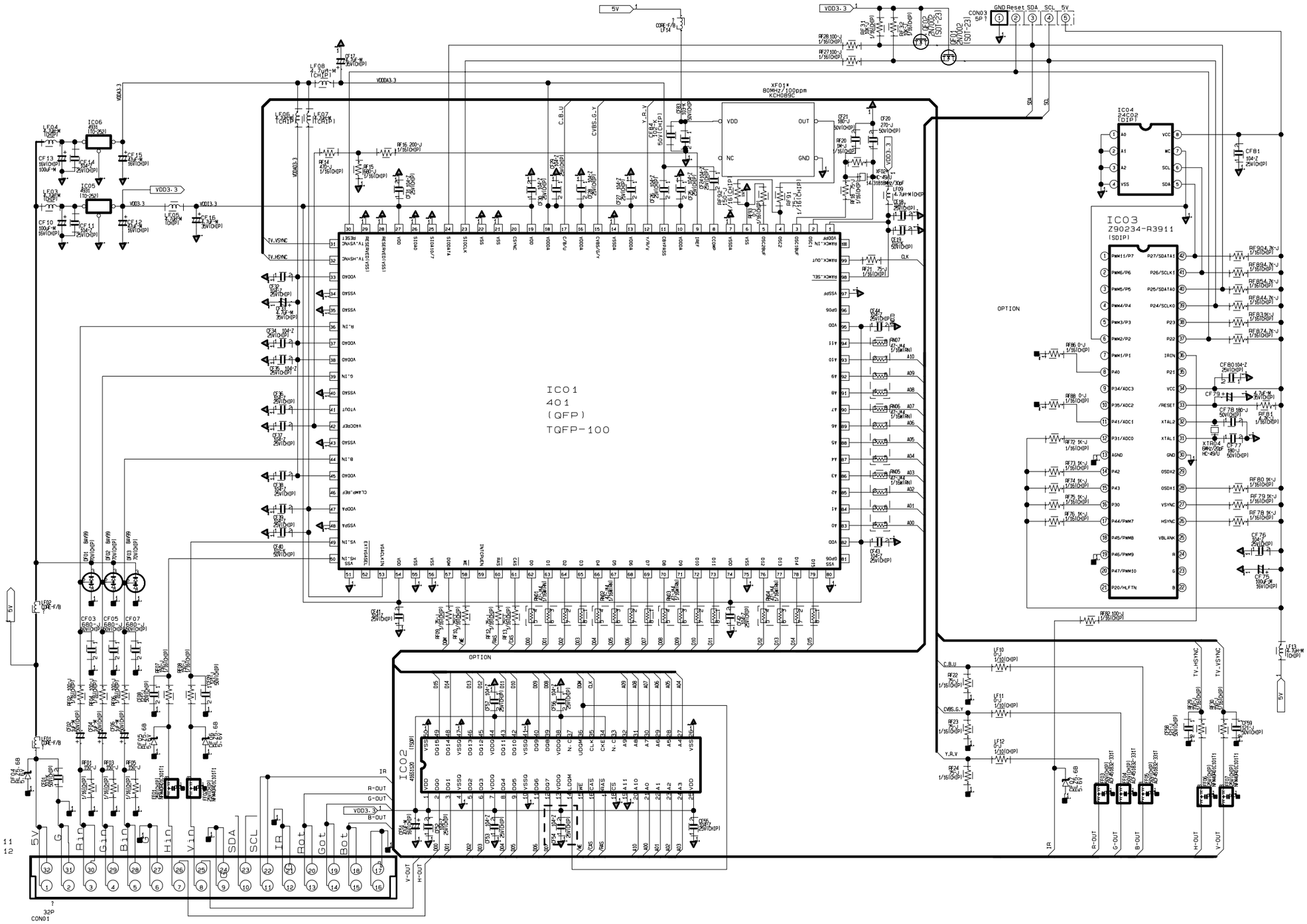


10-25 SUB AMP/PFC

SUB AMP



PFC



10-26 FORMAT-CONVERTER